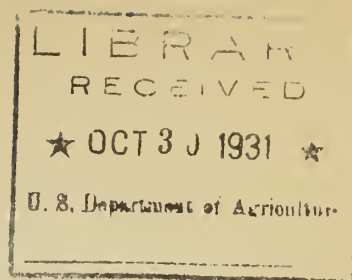


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April 18, 1931.

MEMORANDUM FOR MR. MORSE SALISBURY
Chief of Radio Service.

Subject: Report on Experiments.

The following general conclusions stand out as a result of an analysis of farmer listener reports on the series of experiments made by the Radio Service of the United States Department of Agriculture in cooperation with Station WGY.

They Know What They Want

The majority of the reports received show rather definite preferences between the different styles of programs presented in these experiments. The answers and comments show a keenness of criticism and cogency of reasoning which generally leave little room for doubt. It is evident that, as one listener put it, "Farmers know what they want."

The Information's the Thing

Rightly or wrongly, they seem to regard radio as a self-contained medium of farm information. The preference for "educational details on specific operations" over the regular narrative style used as a check was the most pronounced of any of the eight styles of program offered. And in every experimental program from first to last, a distinct demand for programs with "more detail" and "more information" was clearly indicated.

Crystal Clearness Required

Running all through the series are discriminations between programs on the basis of the ease of understanding and plainness of statement; which seem to indicate that improvements along this line are most vital to effective presentation of educational material by radio. Concrete terms, active verbs, and picture language are preferred.

New Developments Demanded.

In fact, the enthusiastic comments on the programs in which listeners were required to make pencil notes, draw rough sketches, and make simple charts, show that the possibilities of auricular radio for the visually minded have scarcely yet been touched. Listeners apparently find they need memory aids in using educational material presented by radio.

That Intimate Touch :

Comments scattered through the reports on all the different styles, as well as the definite reactions between the more formal and informal programs in specific experiments seem to indicate a preference for the informal, conversational style of presentation, or what a listener terms the friendly, farmer-like style. They don't care for talks in an unknown tongue.

Radio As A Social Factor

The gregarious instinct of farmers manifests itself in the frequency of preferences based on the "personal touch" and the "human element." The narrative style in which information is presented in the form of experiences of frankly fictitious persons in a mythical county seems to meet the demand for knowledge on how the other fellow does it in a certain measure. It is worth noting, however, that when this style was checked against a program which purported to retail actual experiences, the decision was with the more realistic method. They want to know how real farmers farm.

Education Not Entertainment

However, the majority of listeners represented in the reports want farm information straight. The atmosphere of the farm and the language of the farmer are apparently highly acceptable, but further than that the majority of farmers apparently want no "sugar-coating." The larger number preferred the regular narrative style to the same subject matter interlarded with wit and humor or to the more completely fictionize or fable style.

Vote for Variety

Substantial minorities favored many of the styles rejected by the majority, and often urged their selections with equal show of reason. Others pointed out differences in the temperament, education, or sex of the listener as governing preferences, and suggested that there is no one type of program, but that greater variety is needed in all programs.

EXPERIMENT NO. 1

In Experiment No. 1, presented February 2 and March 3, an effort was made to learn the listener's reaction to a straight away informative talk as represented (a) by the news-story and (b) by a logical, well-outlined public speech style.

These styles compared with the same subject matter presented in our regular narrative Farm Flash style showed the following results:

(a) Total effective reports received ----	32
" favoring Farm Flash style ----	13
" " News-story style ----	18
" with no preference ----	1

This might be taken as indicating a distinct preference for the news-story style, but for the responses to Question No. 2 which asked "Which of the two kinds of talks do you think would be most interesting, as a regular thing, not only to yourself, but to farmers generally? On that:

Total favoring Farm Flash style ----	15
" " News-story style ----	13

Reasons for switch from news-story to farm-flash on second question include "because it is easily understood" and "more entertaining." Or as Listener No. 22 puts it:

"I believe most farmers look for entertainment rather than information but that they gradually and rather unconsciously adopt better methods. I believe the facts as given in the first talk make a much more lasting impression than is realized at the time -- especially after hearing similar talks repeatedly."

It is hardly safe to trust more to a farmer judgment as to others' preferences than his own, but it seems from all the evidences that we are warranted in regarding the votes between these two types of program as pretty much of a dog-fall.

Reasons given for preferring the Farm Flash style include:

7 Listeners ---	on account of personal touch including "personal touch," "conversation better remembered," and "other fellows experiences."
3 " ---	on account of more minor details.
2 " ---	"understood better."
1 " ---	"more entertaining."

Reasons given for preferring the News Story style include:

6 Listeners ---	on account of being "more to the point."
5 " ---	on account of being "more easily understood."

1. *Pharmaceuticals* (1997) 10: 101-110.

"Because the first illustrate

36.

11

1. *Phragmites australis* (Cav.) Trin. ex Steud.

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Journal of Management Studies, 19(1), 67-80.

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One month after the foregoing program, the experiment with plain fact talk as against the Farm Flash style was repeated; but in the second presentation a well-organized speech form was used instead of the news-story form.

Out of a total effective reports received of	----	18
" favoring Farm Flash style	-----	10
" " Speech style	-----	5
" undecided on preference	-----	3

This is certainly a puzzling reversal of form, as the speech style was clearer and more definitely organized than the news story. The reasons for preferences followed much the same line as in the first part of the experiment.

Reasons given for preferring the Farm Flash style include:

5	Listeners	-- on account of personal element.
3	"	-- "Easier to get"
1	"	-- "Plainer."
1	"	-- "Explained more fully."

Reasons given for preferring logical speech form:

2	Listeners	-- "More concise and to the point."
3	"	-- "Clearer."

Comments from those reporting in favor of Farm Flash style include such as the following:

From Listener No. 2: "Because it draws you to what they are doing and you compare them with others and yourself and you do what you think is the better way" (Ans to Q.5)

From Listener No. 8: "I believe the First was explained more fully than the second." (Ans to Q.2) "Without the details nothing is interesting."

From Listener No. 19: "The average Northern New York farmer can be persuaded in a friendly way to try anything once, but when you start ordering him to do it, well he just stands pat on the old methods, which means no progress."

From Listener No. 25: "Personal element. Take the talk on hogs for example. It is easier to visualize a thing when you say the boy chased the pigs than to suggest that a boy chase them. I did however like the resume at the end of the 2nd talk."

From Listener No. 37: "More interesting to hear of others' experiences -- their mistakes and successes."

Comments from those reporting in favor of the Speech form include the following:

From Listener No. 7: "Names of people who do not exist don't appeal to me."

From Listener No. 9: "I thought it was the clearest and most interesting."

From Listener No. 22: "More direct." *

From Listener No. 23: "Plainer and more interesting. Went more into details."

On the 2nd Question No. 22 switched to the Farm Flash style because "Impression given of actual farm experience, not college theory." And on Question 5 again voted for Farm Flash because of "indirect suggestions."

Comparing the showing made by the News-story with that made by the Speech form, the better showing of the News-story may possibly be explained on the basis of the so-called logically illogical News-story style more nearly approaching the natural conversational manner than the more artificial, logical well-outlined speech.

EXPERIMENT NO. 2

In Experiment No. 2 an effort was made to determine radio listener preference in regard to jokes and humor in educational programs. For this purpose a regular Farm Flash narrative style was presented, and immediately followed by a write up of the same subject matter interlarded with jokes and humorous anecdotes. Listeners were asked to report their preference and the reason they liked one program better than the other. The same method was tried a month later with different subject matter. (February 4 and March 5)

The following results were obtained from the February 4 trial:

Total effective reports received ---	29
" favoring Farm Flash style ---	15
" " Humorous " ---	12
" having no preference -----	2

Reasons given for preferring the Farm Flash style with the number of listeners advancing these reasons follow:

* 4	Listeners	preferred	the	Farm	Flash	because	it	"explained	more	fully."
4	"	"	"	"	"	"	"	of	"personal	element."
4	"	"	"	"	"	"	"	"more	direct."	
2	"	"	"	"	"	"	"	"plain	facts."	
1	"	"	"	"	"	"	"	subject	matter	reasons.

* 2 of these objected to too many jokes in second program.

Reasons given for preferring the Humorous style with the number of listeners offering the reasons were:

3 Listeners preferred the Humorous style because of "jokes."

"conversational."

* 1 " " " " " " "more pleasing language."

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** 1      "      "      "      "      "      "      "more interesting."
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1 " " " " " " "more variety."

2 " " " " " " "more human."

2 " " " " " " "better understood."

2 " " " " " No reason.

* This listener switched to Farm Flash on 2nd and 5th Questions. In his opinion, farmers generally would prefer the first, because "a little simpler and plainer for the average listener." Also Farm Flash would give farmers strongest desire to adopt practices recommended because "more as farmers" converse on garden subjects.

** This listener found Humorous style more interesting, but said, "perhaps there are a little too many jokes."

Some of the comments of those who favored the first or Farm Flash narrative style without humor follow:

Listener No. 1: "The first explained the subject more thoroughly, while the second had too many jokes in it."

Listener No. 2: "I think the Fairfield County talk is the best as it is more like a story about what they are doing down there."

Listener No. 8: "I like jokes, but I can't remember jokes and science without mixing the two together." and "I believe that all educational talks should be kept as much to the point as possible without overlooking any of the essentials."

Listener No. 18: "Plain facts." *

Listener No. 20: "Too many jokes takes your mind off the meat of the talk."

Listener No. 22: "More concise." **

Listener No. 26: "Does not beat around the bush."

Listener No. 36: "The farmer as a rule is very busy and wants the information without story telling."

* Listener No. 18 switched on Question No. 2 to the Humorous style for farmers generally as a regular thing because "more entertaining."

** Listener No. 22 switched to Second on Question No. 2 because "It might cheer one up on a dull day."

Now here are some of the comments of those who favored the humorous style:

Listener No. 11: "Because it was enlivened by stories. When anecdotes fit, they are always welcome."

Listener No. 10: "Don't know exactly. We liked the Humor in the second talk. Not enough difference in the wording of the two talks to make a choice between the two except for the jokes that went into the second talk."

Listener No. 29: "Witty stories amused me. The reason, I think that Golden Bantam sweet corn is so popular is because the majority of people never heard of any other."

Listener No. 25: "More interesting form. Gives more time to make notes if interested. Perhaps there was a little too many jokes."

Listener No. 21: "More spicy and interesting."

Listener No. 33: "This talk seemed to me to be more definite." and "As a matter of honest criticism, it seems as if more information could have been given had the 'he said' and 'I said' been left out. Five minute talks are short and the speaker has to hew his amount of words down to the point if any real good is given to the listeners."

The same experiment was repeated on March 5 with the following results:

Total effective reports received	----	19
" favoring Farm Flash style	-----	13
" " Humorous	-----	6

Reasons for preferences and the number of listeners giving those reasons follow:

Preferring Farm Flash

4	Listeners declared it was "better understood."
2	" preferred it because of the "personal element."
2	" " " " " "plain talk."
2	" " " " " "more definite."
1	" " " " " "more interesting."
1	" " " " " of subject matter."
1	" " " " " no reason."

Preferring Humorous Style

3	Listeners preferred on account of entertaining stories.
1	" " " " " "more details."
1	" " " " " "plainer."

Comments of those who preferred the Farm Flash narrative style include:

- Listener No. 2: "The explanation is the nearest to the way the average farmer does it."
- Listener No. 3: "The suggestions were in a more neighborly fashion."
- Listener No. 9: "Gave facts in better form for remembering." *
- Listener No. 12: "To the point. Nevertheless the second was just as good and I believe was considerably more popular among the farmers."
- Listener No. 15: "The facts are plain. Too often business addresses and even sermons are so mixed with jokes that the truth is lost. Let's have the facts or truths unadulterated."
- Listener No. 17: "It seems to me more interesting. It is more like two people having a chat about the subject."
- Listener No. 33: "As the advice and other points of talk of benefit to listener were given first place over funny stories, the attention of anyone listening to the talk would get fastened to these points and remember these better."
- Listener No. 36: "Easier to remember. Not so apt to make mistakes."
- Listener No. 9 switched to the second or humorous program on questions involving other farmers, because "lots of farmers like a joke and a story. Very likely they would listen more attentively to 2nd."

Comments from those who gave the humorous style as their personal preference include:

- Listener No. 39: "The stories were so entertaining."
- Listener No. 37: "More interesting. I enjoyed the poetry and cheeriness of the second method of giving the information. The farmers and their families need to laugh some in order to digest facts or food."
- Listener No. 23: "More detailed information. Plain and more easy understood."

It is interesting to note how the reports on these two humorous programs compare with the two plain unadorned news story and speech types.

Experiment No. 1(a) compared with Experiment No. 2(a)

Total reports	32	Farm Flash style	13	News-story style	18	Even	1
" "	29	" "	15	Humorous	" 12	"	2

Experiment No. 1(b) compared with Experiment No. 2(b)

Total reports	18	Farm Flash style	10	Speech style	5	Even	3
" "	19	" "	13	Humorous	" 6	"	0

In other words, it would appear that the humorous talk made a poorer showing against the Farm Flash style than did the plain, unadorned talk forms.

EXPERIMENT NO. 3.

In Experiment No. 3, a plain question and answer style of presenting educational material was tested out against the narrative style as represented in our Farm Flashes. This program was presented February 10, and then repeated with different subject matter on March 11.

Listeners were asked to indicate their preference between the two styles, and give the reasons for liking one more than the other.

Total effective reports received ----- 32

" number favoring Farm Flash style -- 11

Question-Answer --- 17

That is, the simple question and answer form of presenting material was preferred by a substantial majority of the listeners reporting.

The reasons given by those who preferred the Farm Flash were much the same as in the two previous experiments; that is:

2 Listeners preferred the Flash because of the "personal element."

2 " " " " " it was "more direct."

2 " " " " " of subject matter handled.

2 " " " " " " "more information."

2 " " " " " " " " no reason.

1 " " " " " "explained better."

The reasons given by those who preferred the Question and Answer style, however, appear to be more definitely diagnostic.

6 Listeners' replies can be classes as on account of Q. & A. being
"more easily understood."

4 Listeners because they were "more interesting."

1 " " " " "more definite."

1 " " " " "explained better."

1 " " " " "more details."

1 " " " "more concentrated."

I " " " " "seemed shorter."

Comments of the listeners may help explain these reasons. Among those who preferred the Farm Flash style, the following explanations were made:

Listener No. 2: "The first talk about Fairfield's County much better than the second. The first talk makes a good impression on one's brains, where the second is like reading anything you forget very easily." -- "It refers to other farmers' experiences."

Listener No. 5: "If we think some one has actually tried the scheme themselves we are more apt to be interested and follow the practice ourselves."

Listener No. 17: "There is more usable information in it."

Listener No. 19: "Because it seems to explain the subjects more fully than the second talk."

Listener No. 37: "It seems pleasanter to listen to while eating."

Comments from listeners preferring the Question and Answer include the following:

Listener No. 12: "The first would put me to sleep. The second put an edge to my appetite."

Listener No. 16: "Because he explained all the details and facts about watering and feeding hogs was brought out so clearly."

Listener No. 20: "I can't just tell why but the 2nd seemed more interesting, altho both were very good."

Listener No. 23: "Different subjects dealt with separately and in a more understanding manner."

* (Insert)

Listener No. 26: "Questions and Answers seem to arouse interest."

Listener No. 39: "The information was in more definite form. The question gets your attention to the matter to be discussed and, if interested, the answer will receive the entire attention."

Listeners No. 23, 25, 26, and 39 seem to analyze the preference for Question and Answers succinctly.

The repetition of this experiment on March 11 with different subject matter prepared in the same style but by a different writer showed results similar to those obtained in the first trial.

Total effective reports received	-----	17
" favoring Farm Flash style	-----	7
" " Question and Answer	-----	9
" rating the two styles equal	-----	1

The reasons given for preferences also closely approximate the reasons assigned by listeners at the first test.

Among those favoring the Farm Flash style; Two (2) mentioned the human element; (1) "more spicy;" One (1) "more interesting;" One (1) "more connected;" and two (2) gave no reason.

* (Insert) Listener No. 25: "Easier to digest the facts. While I like the personal element in the first talk the best, it was too rambling to absorb easily."

Among those favoring the Question and Answer method of presenting the information: Two (2) declared it was more easily understood; two (2) that it was "more definite;" two (2) that it was "more fully given;" one (1) that it was "more concise;" and one (1) got off on subject matter.

Some of the comments of those favoring the two styles are listed below.

Those favoring the Farm Flash narrative style said:

- Listener No. 2: "He tells others' experiences." and "He tells how they do it in Fairfield County."
- Listener No. 17: "It is like a chat between two men."
- Listener No. 22: "More direct and connected. Second talk was too disconnected to be easily followed."
- Listener No. 29: "Think it more interesting as well as more instructive."
- Listener No. 37: "It seemed a little more spicy and commanded my attention. However, the second was also interesting -- my brother thought the more so."

To Question 5 asking the opinion as to which would give farmers the strongest desire to adopt the practice recommended, this woman listener No. 37 said "1st., if they possess considerable imagination."

Comments from those favoring the Question and Answer style include:

- Listener No. 11: "More fully explained."
- Listener No. 18: "Folks inquired by questions, just what they wanted to learn about." and "Farmers know what they are interested in."
- Listener No. 21: "I think the second a little plainer and more attractive" and in answer to Question 5 "concise; question and answer."
- Listener No. 30: "The attention is drawn to the subject and then the answer is impressed on your mind."

EXPERIMENT NO. 4.

In Experiment No. 4, presented on February 13 and March 9, the regular Farm Flash narrative style was tested in comparison with a style in which the same information was presented in the form of examples or detached experiences of farmers scattered around the State.

In both cases the information came largely as personal experiences of farmers. In the Farm Flash or narrative style, the experiences were those of fictitious characters in a mythical county. In the example style were purportedly those from real farmers here, there, and yonder.

This Experiment No. 4 would seem to offer some test of real as opposed to imaginative treatment; and, as the listeners to these programs were presumably accustomed to the Farm Flash style, it would seem to give some indication as to the extent to which the narrative style is responsible for the hold this program is thought to have obtained on the farm audience.

In both tests of the Farm Flash narrative style vs. the Example style, a majority of the listeners reporting declared in favor of the Example style.

On February 13:

Total effective reports received	-----	21
" favoring Farm Flash style	-----	8
" " Example style	-----	11
" rating both styles equal	-----	2

On March 9:

Total effective reports received	-----	20
" favoring Farm Flash style	-----	7
" " Example style	-----	10
" rating both styles equal	-----	3

The reasons assigned for these preferences, when compared with those from previous experiments, are most illuminating. Reasons assigned for favoring the Farm Flash of February 13 were:

1	Listener preferred the Farm Flash because of "human element."
2	Listeners "more easily understood."
2	" " "more concise."
2	" " "more interesting."
2	" " "no reason."

Reasons assigned for favoring the Farm Flash on March 9 were:

1	Listener preferred the Farm Flash because of "human element."
1	" " "more detail."
1	" " "more direct."
1	" " "clearer."
1	" " and went off on subject matter.
2	" " "no reason."

Now let's look at the reasons assigned by those who favored the example style as presented in these same two experiments on these same two dates.

On February 13:

3	Listeners preferred the Example style because of "human element."
3	" " " " " " " "more easily understood"
2	" " " " " " " "more interesting."
1	" " " " " " " "more explicit."
1	" " " " " " " "more convincing."
1	" " " " " " " no reason.

On March 9:

2	Listeners preferred the Example style because of "human element."
2	" " " " " " " "direct experiences."
1	" " " " " " " "more realistic."
1	" " " " " " " "more interesting."
1	" " " " " " " "more concise."
1	" " " " " " " subject matter.
2	" " " " " " " no reason.

It will be seen from the foregoing, not only that the Example style is preferred to the Farm Flash narrative style, but that the chief reason for the preference is the "human or personal element" in the Example style.

As the "personal element" is the chief reason assigned by listeners preferring the Farm Flash narrative style in the previous experiments, and as that reason is switched to the more disconnected Example style without the familiar characters and setting in this Experiment, it would seem to be clearly indicated that it is the farmer-experience rather than the narrative style which governs the preference in the larger number of cases.

In other words, actual farmer experiences regardless of style would be preferable to the Farm Flash narrative style. The possibilities of working out a system by which farm information can be presented in the form of actual farmer-experiences seems to be worth the most serious consideration.

The preferences shown in this experiment for the more disconnected examples, together with the preferences shown in Experiment 3 for the Question and Answer style, seem to indicate a decided advantage in the more frequent pulling up of radio listener attention by some such structural devices. Is the easy flowing style a good radio style?

Comments of the listeners favoring the Farm Flash style of February 13 follow:

Listener No. 9: "He gave facts in a concise manner so that a person could get just the information he needed." ---- and "Mr _____ was late in listening in today, so my daughter who looks after the incubators and I listened in until he came in. We both agreed with him that we preferred the first talk. The second was entertaining but we all agreed that with us the things he said did not stick in our minds as well as the first."

Listener No. 19: "It is naturally the farmers' own way of discussing things."

Listener No. 33: "This talk was of greater interest to me as it hit my line. I have 800 layers so of course every word was used as fast as the speaker talked."

Listener No. 2: "The experience of another farmer."

And on March 9,

Listener No. 3: "I may be an odd one, but I think the less unnecessary words the more information you get that might be of use to some one."

Listener No. 22: "More direct" but on Question 2 in regard to farmers generally he switched to Example style as "More interesting, more impressive of farm practice."

Listener No. 33: "I thought the talk was a little clearer."

Comments of the listeners favoring the Example style as presented February 13 follow:

Listener No. 8: "It was written in a plain everyday manner, one that applies to our everyday life."

Listener No. 12: "The first talk, frankly speaking, I got lost -- impossible to keep up."

Listener No. 21: "Personal element as represented by letters showing experience of others."

Listener No. 24: "While I enjoyed the first talk, I prefer the second one, as my Rhode Island reds are commencing to set, naturally I was interested."

Listener No. 27: "Very plain so every one could not fail to understand it."

Comments of the listeners favoring the Example style as presented March 9 follow:

Listener No. 9: "I enjoy hearing the direct experiences of others. What they have tried and results."

Listener No. 20: "In my opinion 2nd was one of the best talks I ever heard from WGY."

Listener No. 23: "Both were interesting, but the second seemed to be more concise"

Listener No. 25: "The personal tone. Names and figures make it more realistic. (My wife says easier to understand.)"

Listener No. 34: "The reason is because, it being the experience of a practical farmer."

Listener No. 36: "It appealed to me better by giving definite results and tests."

3 Listeners preferred the Farm Flash because of "personal element."
2 " " " " " " " "clearer."
1 " " " " " " but went off on subject matter.
1 " " " " " " no reason.

The reasons given by those who favored the Details Style:

On February 18:

5		Listeners preferred the Details Style because of "details."
5	"	" " " " " " " " "more information."
1	"	" " " " " " " " "wider appeal."
2	"	" " " " " " " " "better explained."
1	"	" " " " " " " " "more definite."

On March 19:

3	Listeners preferred the Details Style because of "details."
2	" " " " " " " " "more concise and clear."
2	" " " " " " " " "more direct."
1	" " " " " " " " "more definite."
1	" " " " " " " " but went off on subject matter discussion.

but went off on subject matter
discussion.

The explanatory comments of some of these listeners make this position much clearer.

First, those favoring the Farm Flash style include such as these on February 18:

Listener No. 17: "No. 1. gave some practical experience that anybody could do." and "Because in No. 2 there were some things mentioned that would not help materially."

Listener No. 19: "It carried more of an appeal for better farming than the second" and "seems plainer and easily understood." and "because it is adapted to their way of thinking and speaking about the subjects discussed."

Comments of those favoring Farm Flash style on March 19:

Listener No. 7: "Having worked in a creamery this talk appealed to me as this episode happened almost every day (in regard to sour cream, dirty cans, etc.)"

Listener No. 18: "This talk did not get very far. I don't think the person who wrote this article washed very much or many milking utensils." --- "Very little difference in two talks."

Listener No. 19: "It is broached in the farmer's way of speaking of things." and "Seems to send the matter straight home to the farmer."

Listener No. 37: "It was interesting to hear about the careful and systematic Burns family who apparently make butter for the 'Robins' Nest.' Listeners in are much interested in the Robinses." and "To farmers women folks, the first" thinks 2nd for farmers generally.

Comments of those favoring the Details style, on February 18:

Listener No. 36: "It tells the number of birds that were known to eat the various insects."

Listener No. 23: "Plainer, more concise, and went into details of different subjects; also more interesting."

Listener No. 2: "I preferred the second talk as he explained the good done by the different birds, etc."

Listener No. 3: "Each talk was very clear and interesting regarding building bird houses and the reason for doing so and the directions for dormant spray and its advantages." and "It reached the boy as well as man."

- Listener No. 9: "I think most farmers listen at noon for instruction and information rather than entertainment. The other talk might sometimes be more entertaining but I like this one best."
- Listener No. 12: "The mere mention of the number of each kind of bird that are necessary to the farm, and which help him. Now I also am interested which are most essential. Will you send me copies of Nos. 1456 and 1285?"
- Listener No. 30: "It gave more information on How and Why."
- Listener No. 31: "More instructive. It covers the subject more thoroughly by giving formulas for those unacquainted with the business."
- Listener No. 39: "The definite information easier to follow."

And those favoring Details style on March 19:

- Listener No. 36: "It gave reasons for so and so, telling what to do and why. Also what to expect, which I know from experience as well as theoretically."
- Listener No. 3: "I liked the style of the second because it brought out more points on good butter making."
- Listener No. 25: "Altho in previous reports, I have expressed a preference for the talk featuring the personal element, in this case I thought the other was more clear."
- Listener No. 34: "Seemed to explain it more thoroughly; especially on making butter."
- Listener No. 23: "The second talk told why certain practices should be developed where the first failed to mention why it should be done."
- Listener No. 9: "To me it was more concise and clear giving the information in a way I could best understand and utilize it."

EXPERIMENT NO. 6.

Experiment No. 6, presented February 20 and March 16, for convenience is referred to as "Selling more information."

The purpose of this experiment was to learn the reaction of listeners to programs designed to arouse, but not to satisfy, the desire for more information.

In the program of February 20, the subject matter was partly covered by questions and answers, and then questions on the other part were asked but not answered. Listeners were referred to bulletins for the answers.

In the program of March 16, the results of certain farm practices were given. To get the details on how to get the results, listeners were required to write for bulletins.

As in the other experiments, these programs were presented together with the same length programs in the regular Farm Flash narrative style on the same subject matter. In these tests, the Farm Flash style gave the more complete details. As some of the details were purposely omitted from these programs, this Experiment No. 6 gives an additional check on the Experiment No. 5 designed to contain the maximum amount of detail.

As a large majority of listener reports indicated a preference for details in farm educational programs, it is natural to expect that in this Experiment No. 6 the preference would be for the style in which the more details are given, which in this case would be the Farm Flash.

This expectation is borne out to a certain extent by the results. However, this Experiment was in no wise designed or presented with this check in view. One aim was to find listener reaction to programs which are frankly sales talks, in which the object to be sold, in this case the farmers' bulletin, is conspicuously pushed.

On February 20:

The total number of effective reports	-----	19 *
" " favoring Farm Flash style	-----	12
" " " Selling more information style	---	7
" " rating both styles even	-----	1

* Several not included reported the broadcast on this date as off schedule time.

On March 16:

The total number of effective reports	-----	19
" " " favoring Farm Flash style	-----	18
" " " " Selling more information	----	8
" " " rating both styles even	-----	2

Reasons assigned by those preferring the Farm Flash style were, on February 20:

5	Listeners preferred the Farm Flash because of "more detail."
3	" " " " " " " " "better understood."
2	" " " " " " " " "personal element."
1	" " " " " " " " "more interesting."
1	" " " " " " " " subject matter.

Reasons assigned by those preferring the Farm Flash style on March 16 were:

3	Listeners preferred the Farm Flash because of "personal element."
3	" " " " " " " " "more direct."
1	" " " " " " " " "more interesting."
1	" " " " " " " " "better understood."

Reasons assigned by those preferring the two "Selling more information" styles on February 20 were:

2	Listeners favored the "S.M.I." style because	"plainer."
1	"	"creates desire for
		more information."
1	"	"gets attention."
1	"	"more fully given."
1	"	"more direct and
		explicit."
1	"	"more instructive."

Reasons assigned by those preferring the two "Selling more information" styles on March 16 were:

2 Listeners favored the "S.M.I." style because "explanation better."
2 " " " " " " "more detail."
2 " " " " " " "subject matter reasons."
1 " " " " " " "more attractive."
1 " " " " " " "more direct."

As in Experiment No. 1 where the style was changed in the test program of the two dates, the change shows up in the character of the responses obtained.

The comments of the listeners who preferred the Farm Flash style include:

On February 20;

Listener No. 2: "He tells how the other fellow does it."

Listener No. 7: "Gave more concrete information in a simpler way." and "No. 2 asked questions and failed to answer them. While people with hen experience know the answers, beginners probably would not."

Listener No. 8: "In the second the question was asked but the answer not given. I believe if you were to adopt this plan you would give the answer. In that case I believe I would prefer the second." and "By asking questions the individual takes a part in the program." and "By giving the answer one may put in practice at once that which is recommended and once convinced one would become more interested in following radio suggestions closer than by sending for bulletins."

Listener No. 11: "Gave more detail."

Listener No. 17: "Because of the information being tried personally."

Listener No. 19: "The first seems more friendly and not so tense as No. 2."

Listener No. 20: "More like talking personally with County Agent Robbins."

Listener No. 3: "Information received at hand without sending for leaflet and maybe not getting it on time."

On March 16:

Listener No. 31: "Facts are more clearly understood."

Listener No. 27: "This one was along different lines and plainer, more to the point and much plainer and in all a dandy talk. Very beneficial to all farmers who farm on a large scale."

Listener No. 19: "Seems to bring the matter more home to the farmer."

Listener No. 22: "Because of the personal element in the discussion."

Listener No. 6: "The personification of the experience made a deeper impression than the abstract principles of the second."

It is fairly clear from these comments that the listeners preferring the Farm Flash style in these two tests did so on account of the "personal elements" and the greater "details." In this connection the comments of Listener No. 8 on February 20 and Listener No. 6 on March 16 are especially worth noting.

Now for the comments of those preferring the Selling More Information style. They include:

On February 20:

Listener No. 21: "Emphasis on bulletins makes one want it."

Listener No. 23: "Plainer explanation and could be put into practice at once without getting further information" (?)

Listener No. 26: "To get full information anyone must send for bulletin on chickens to be able to answer the questions asked." and "Am enough interested in bulletin on incubation and brooding chicks that I would like #1538 sent to me."

Listener No. 39: "It impressed the facts more clearly on the mind." and "told in a more entertaining way."

On March 16:

- Listener No. 3: "In the second part the corn situation was more interesting and informative, but in the first the laying of the drain pipe was explained more fully."
- Listener No. 8: "I feel that it covered the subject with more detail. It gave the facts with less frills."
- Listener No. 12: "In answer to Question 4 as to which creates greatest desire for more information, says, 'I believe 2nd on account of the wind-up.' and 'The start of 2 on \$5 vs. \$10 etc; switch to talk No. 1, wind up with the finally of No. 2, I would say it would be perfect.'"
- Listener No. 21: "The thing that creates the most interest is likely to carry the most influence."
- Listener No. 23: "It was plainer, contained more information delivered in a more interesting manner, created a desire on the part of the listener to secure more information on the subjects and to use such information after securing same."
- Listener No. 39: "The manner of presentation caught my attention better, although there was not much difference in them."

Some of these comments suggest that these talks actually did serve the end of "selling more information." Bearing in mind that those favoring the sales talk were slightly in the minority calls attention to the fact that what is most desired by the listener may not be most desirable from the point of view of the man with something to sell. This experiment tends to indicate that more farmers favor the more self-contained program requiring little if any supplemental information, but that some other form of program may prove more valuable to the man with something to sell, whether that be Farmers' Bulletins or whatnot.

EXPERIMENT NO. 7.

In Experiment No. 7, presented February 24 and March 25, an effort was made to probe the possibilities of developing a new type of radio program based on the idea of active listener participation by the use of pencil and notes.

In this Experiment, farmer listeners were required to "learn by doing" by noting down key words, drawing pictures, and making charts according to directions given in the talk.

The response to this experiment indicates that it was highly successful; that farmers can and will take part in programs of this sort; and that they find this method an aid to understanding and remembering the information given.

In fact, the opinions expressed by key listeners suggest that a more extended trial of this method with the idea of showing the fuller possibilities and that at an early date. As with other experiments of this series, the pencil and notes talk was given following a talk on the same subject matter in the regular Farm Flash narrative style, and listeners were asked to indicate their preference, and tell why they liked one better than the other.

On February 24:

The total number of effective reports -----	22
" " " favoring the Farm Flash style --	6
" " " " Pencil and Notes " --	16
" " " rating both even -----	0

On March 25:

The total number of effective reports -----	17
" " " favoring Farm Flash style -----	7
" " " " Pencil and Notes -----	8
" " " rating both even -----	2

Reasons assigned by those preferring the Farm Flash on February 24 were:

3	Listeners favored Farm Flash because	"better understood."
1	" " " " " " "	"more detail."
1	" " " " " " "	"personal element."
1	" " " " " " "	"plain facts."

Reasons assigned by those preferring the Farm Flash on March 25 were:

	1	Listener favored Farm Flash because	"personal element."
	* 1	" " " " " " "	"plain facts."
word for	1	" " " " " " "	"no pencil needed."
2nd	1	" " " " " " "	"more to point."
	1	" " " " " " "	"easier to follow."
	2	" " " " " " "	"more sensible."

Reasons assigned by those preferring the Pencil and Notes style on February 24 were:

4	Listeners preferred Pencil and Notes style as	"plainer."
3	" " " " " " "	"easier to remember."
1	" " " " " " "	because "permanent record."
2	" " " " " " "	"compels attention"
1	" " " " " " "	"novelty."
2	" " " " " " "	"stronger impression."
1	" " " " " " "	"pencil work."
1	" " " " " " "	"human element."
1	" " " " " " "	"better explained."

Reasons assigned by those preferring the Pencil and Notes style on March 25 were:

2	Listeners preferred Pencil and Notes style as "easier to remember."
3	" " " " " " " " "plainer."
1	" " " " " " " " "permanent record."
1	" " " " " " " " "novelty."
1	" " " " " " " " "facts only given."

Comments of those favoring the Farm Flash style on February 24 follow:

Listener No. 1: "I can understand better."

Listener No. 11: "Sound advice" and "More detail and what the farmers need."

Listener No. 17: "Because it had been tried out personally." and "Because it better explains the thing presented."

Listener No. 18:* "Plain facts" and on Question 5 as to which gives farmers desire to adopt practice recommended. "Very doubtful if many farmers would follow advice given in second talk about pigs."

Listener No. 31: "More clearly understood" and "Required less time and thought to understand."

Listener No. 33: "Details were easier for me to get." and "Facts connected in a more interesting way as I saw the two talks."

Comments of those favoring the Farm Flash style on March 25 follow:

Listener No. 25: "The other too hard to follow."

Listener No. 17: "It seems to me that it is like two men talking" and "Mrs _____ came over to my side and she said she liked No. 1 best."

Listener No. 18: "Good helpful talk."

Listener No. 29: "The second was so extremely foolish." "Talks always 'come on' while farmers are at dinner, and no farmer would take a pencil and paper and make that foolish diagram while eating -- or any other time."

Listener No. 31: "Because it requires no pencil or paper although I believe the man at home with plenty of time could get more lasting information from the second."

Listener No. 34: "It seemed more to the point, although the second did explain it more thoroughly."

Listener No. 36: "More simple. Easier to remember. Who wants to go to the trouble of drawing a lot of lines on paper anyhow unless it is a bunch of kids." and "Second is a big mistake" and "Cause it has some sense while the second is punk." and "These directions as for making lawns will be followed by men not a bunch of women and children."

Comments on those favoring the Pencil and Notes talk on February 24 follow:

Listener No. 2: "The explanation was fine. We could not help but learn when he makes us draw out a plan." and to Question 5, "Because you hear it, you have to write it, and you see it wrote; so you can not help but know it."

Listener No. 3: "Due to the fact it was unique and that of course aroused the interest and made it more easily remember." and to Question 2, "We have reference on hand." and to Question 5, "To awaken the interest farmers want to know more on same subject. Majority of farmers that are in position will want to know the care of mare and foal."

Listener No. 4: "Because it gives the farmer some pencil work, and that gives him the picture."

Listener No. 5: "The illustrated notes would be something to keep and refer to so that no item would be forgotten."

Listener No. 7: "The style was more interesting."

Listener No. 8: "There is no chance to forget. The facts are before you on paper." and to Question 2, "There is no way for anyone to misunderstand." and "I realize this method cannot be used at all times. But when it can it will be a big help to all farmers."

Listener No. 9: "Fact of writing down things impresses it on the mind. Have to pay more strict attention as he went along." and in answer to Question 2, "An idea given expression to sticks longer." and "The information given on the various subjects seems very practical."

Listener No. 19: "First talk was very good, personally I would just as soon get it that way. But the second talk would make more farmers remember the vital points more so than the first."

Listener No. 21: "I do not think people would follow the practice of making a diagram every time but as a change it is very helpful."

Listener No. 22: "In my opinion this is much more effective than any previous talk. Get the listeners into the pencil and paper habit and you will see results."

- Listener No. 23: "More fully explained and better understood" and "The second also created a desire on the part of the listener for more information on the outlook for horse and mule production in the next ten years."
- Listener No. 26: "Much easier to remember with diagram." and "Easier to remember and understand, also quicker." and "It gives a clear diagram on sheep, horses, mules, and care of pigs and by sending for bulletins they would have a definite plan to follow."
- Listener No. 27: "This talk was fine and right to the point. I am sure anyone listening in to this talk could readily understand it and believe it to be the best talk yet over the radio." and "County Agent Robbins is sure a good speaker and it is hard sometimes to choose which is the better of the two talks because they are usually right to the point."
- Listener No. 36: "The plan on paper leaves a permanent record for home use so the ignorant helpers can't have any excuse for looking after the sows properly in case Boss is sick or away just at that time."
- Listener No. 37: "Second talk made things plainer and brought in the human element. 'What man hath done, man can do'. Good thing for business to get pencil and paper and calculate and learn from others." and "Encourage use of pencil and note book and repeat (at least once) numbers of bulletins desirable for farmers to read."

Comments of those favoring the Pencil and Notes talk on March 25 follow:

- Listener No. 2: "Because you do as County Agent Robbins tells you. You not only hear it. But you draw a picture also." and "Because you have got to understand it."
- Listener No. 8: "Simplicity with a ready reference for all times." and "--- I believe the average person just listens to the average farm program but the chart way (when it is possible) is better as it calls every one into the program and then leaves you with a reminder in your hands."
- Listener No. 7: "No. 2 is a novelty and being new would compel the attention. Can't say how long it would remain new."
- Listener No. 19: "It leaves more of an impression on a person's mind and is not easily forgotten." and to Question 5, "Because the advantages gained are remembered better by the farmer." and "If this system of talks is used more time should be given to write the notes, etc., down. A slow writer might be a persistent follower of instructions if he gets the facts right. (First talk very good)"

Listener No. 21: "Plainer, any one who takes pains to do these drawings must get a real impression."

Listener No. 23: "The second created a desire on the part of the listener where the first lacked that feature."

Listener No. 37: "We have notes and illustrations to aid us in remembering the knowledge given."

EXPERIMENT NO. 8.

In Experiment No. 8, presented February 26 and March 27, listeners were asked to choose between the regular Farm Flash narrative style and a talk containing fables and one in the form of a connected fable.

Responses to this experiment it was thought might serve to give some measure of the value of more completely fictionized programs; and, in connection with the experiment with humorous anecdotes, might give some indication of the whole question of entertainment in educational broadcasts. It also is some check on the value of the narrative as such in the regular Farm Flash style.

The results as indicated by listener reports were most positive in favor of the Farm Flash narrative style. The majority in favor of the Farm Flash as opposed to the other style was the largest of any of this entire series of eight experiments. Assuming the main difference to be an entertainment feature, the farm listeners were most decidedly thumbs down on entertainment in educational programs.

On February 26:

The total number of effective reports	-----	23
" " " favoring regular Farm Flash style	-----	15
" " " " Fable style	-----	6
" " " rating both styles even	-----	2

On March 27:

The total number of effective reports	-----	14
" " " favoring regular Farm Flash style	-----	9
" " " " Fable style	-----	3
" " " rating both styles even	-----	2

Reasons given by listeners for preferring the Farm Flash style on February 26 were:

5	Listeners favored the Farm Flash style because	"better understood."
3	" " " " " "	"more instructive."
3	" " " " " "	"personal element."
2	" " " " " "	"plainer."
1	" " " " " "	"easier to remember"
1	" " " " " "	"subject matter reasons."

Reasons given by listeners for preferring the Farm Flash style on March 27 were:

2	Listeners favored the Farm Flash style because	"better understood."
2	" " " " " "	"personal element."
2	" " " " " "	"more instructive."
1	" " " " " "	"easier to remember."
1	" " " " " "	"no reason."
1	" " " " " "	"second too childish."

Reasons given by listeners for preferring the Fable style on February 26 were:

3	Listeners favored the Fable style because of	"stories."
1	" " " " " "	"plainer."
1	" " " " " "	"better understood."
1	" " " " " "	"more clear and concise"

Reasons given by listeners for preferring the Fable style on March 27 were:

2	Listeners favored the Fable style because	"plainer and more interesting."
1	" " " " " "	"easier to remember."

The more complete comments explain these reasons more clearly.

Comments of those preferring the Farm Flash style on February 26 include:

- Listener No. 1: "I can understand better."
- Listener No. 2: "Because he fetches other farmers into it."
- Listener No. 3: "More time devoted to the subject and was more instructive." and "Farmers have no time for fables and wishes to get all information possible in least possible time."
- Listener No. 18:* "They say it pays to advertise." This listener switches to Fable talk in answer to No. 5, with this remark, "Perhaps they explained the subject better. More to advertising than one would think."

- Listener No. 19: "Because it drives the points straight home, more so than the second." and "Second talk very good for college graduates working on the farm, but no good for most of these Northern New York farmers, who walk in the foot steps of the farmers before them."
- Listener No. 20: "Too much irrelevant matter in the second."
- Listener No. 22: "I don't care for fairy stories to illustrate points."
- Listener No. 26: "First is actual experiences, instead of theory."
- Listener No. 29: "Men don't like fairy stories." and "Farming is no fairy story, or, rather, that is just what it is, I guess, with milk at less than four cents a quart and eggs at twenty cents a dozen which does not pay for their feed. Some of you city people come up in this forsaken country and try living on what is left over after providing the feed for your birds, animals, and city relations. It's no joke, I assure you."

Comments of those preferring the Farm Flash style on March 27 were:

- Listener No. 2: "Because he tells what other farmers experiences are. Therefore makes you more interested, etc."
- Listener No. 3: "A more friendly style, that is, it seemed like a letter from a friend." and "For some strange reason, I can only remember a small amount of the second."
- Listener No. 4: "The second was too childish and almost impossible."
- Listener No. 17: "Because of wanting to do what somebody has tried."
- Listener No. 18: "Very helpful talk." and "I think these programs should be varied, they would prove more satisfactory."
- Listener No. 19: "Fairy stories mixed with farm information, kills the information — Farm papers and magazines are full of fairy stories of how to help the farmer get rich. Give the farmer his stuff straight."

Comments of those favoring the Fable style on February 26 follow:

- Listener No. 5: "It was interesting for a change to have the talk illustrated by the rather odd stories of 'Wazodkus' etc. Perhaps it illustrated the point more clearly so as to fix it in the mind of the listener."
- Listener No. 21: "Interesting stories well applied."

- Listener No. 23: "The first talk seems to lack a certain element that creates a desire on the part of the listener where the second seems to have it in a marked degree in particular in some of the talks."
- Listener No. 33: "Subject seemed to be easier to grasp meaning."
- Listener No. 9: "Gives most information the most concise."
- Listener No. 37: "Bring in a little fun now and then. Also a bit of verse right to the point. These aid in the interest considerably although I realize there are various opinions regarding poetry and fun."

Comments of those favoring the Fable style on March 27 follow:

- Listener No. 8: "It was explained so you could remember it better." and "It was more interesting." and "I believe it was possible to understand the subject to a fuller extent."
- Listener No. 23: "More to the point and plainer, more interesting, easier understood and adopted." *

* On consulting the chart, it appears that this Listener No. 23 has voted consistently for the second program in every experiment given. The reason may be seen from this report of March 27: "From my observation in the different talks the first seems more like a story. I don't think farmers in general care about what so and so done in some county with the different subjects of farming. Etc." and "One in writing for different bulletins has to wait from four to ten weeks for the information contained therein, so farm talks should be given with information enough to be adopted until other information can be secured. Also talks should say why so and so should be adopted."

Judging by quantity and quality of reports, the fable of March 27 was the biggest flop of any program in the entire series.

SUMMARY.

In these experiments, the Farm Flash narrative style was found to be preferred by listeners to programs featuring humorous anecdotes, fables, efforts to sell more information, and a unified speech form.

On the other hand, the straight news story, the use of farmer experience examples, the plain question and answer method, educational details on specific operations, and pencil and notes talks were all preferred to the Farm Flash narrative style.

Considered in the order of the greatest popularity with listeners, the rating of the different experiments is: *

1. Details.
1. Pencil and Notes Talk.) tied for 1st.
2. Question and Answer.
3. Examples.
4. Farm Flash narrative.) tied for 4th.
4. Straight news-speech talks.)
5. Selling more information.
6. Humorous anecdotes.
7. Fable.

* This rating determined by relative size of majorities when results of experiments on the two different dates are added.

C. A. Herndon,
Radio Writer.

first
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-1)
(Regular Style)

Wednesday, February 2, 1931.

ANNOUNCEMENT: Now, then, we want to try an experiment. I am going to talk to you about a few things I have noticed in Fairfield County, and then give you the same material in a straight-away style some of my friends say they prefer. Listen to both, and let us know which style you prefer.

Well, that drought certainly changed seed prices around -- and along with them the plans of Fairfield County farmers on field crops they're going to plant. To put it plainly, they're buying seed that's selling at the lowest prices.

With alfalfa seed low -- even lower than red clover -- Dan Burns, for one, is shifting to alfalfa. Jud Older, down at the feed store, says alfalfa seed is of better quality than last year.

Red clover, alsike clover, and sweet clover are all higher than last year, Jud tells me.

Joe Warren's record book shows that timothy seed is the highest in four years. So that means that Joe is planting less timothy than usual.

Well, I'll mention just three more that are higher than usual -- redtop, Sudan grass, and sorgo (or cane). Then to leave a good taste in your mouth, I'll name three others that are lower -- soybeans, cowpeas, and millet.

Now these facts I've been giving you check with the information that the U. S. Department of Agriculture has on prices that growers throughout the country have been getting for their seed. But Jud Older reminds me that dealers' prices in some sections may be different. So, perhaps your own county agent can give you tips on the situation in your region.

Hungry Ridge is going on an anti-wood-rotting campaign. Roy Mock has some fence posts to treat, Joe Warren some shingles, and so on. So they called on Bob Early, an old hand at the job, for suggestions.

Well, Bob thinks there's nothing else quite as good as creosote for treating farm timber. Now as for the wood itself, he always starts with sound timber, seasons it, and strips off all the bark before he treats it.

Bob had his first experience with creosote several years ago when he treated a batch of softwood fence posts. A few of them had already started to rot, and in that case, Bob says, the creosote didn't stop it. But as for the others, they still look like they're good for another 10 or 15 years yet. Just as a matter of curiosity, he used a few posts that he didn't treat. They didn't last more than two or three years.

Bob thinks the "hot and cold bath" process is the best for treating timber on the farm. He heats the timber for an hour or so in a tank of creosote and 180 to 220 degrees Fahrenheit; then transfers it into another tank of creosote at about 100 degrees for about an hour, or else lets it cool with the oil overnight in the first tank.

If you'd like, I'll send you a copy of "preservative Treatment of Farm Timber," Farmers' Bulletin No. 744. If you want information on patented preparations that are on the market, and the names of dealers, you might see your county agent or write to the Forest Products Laboratory, Madison, Wisconsin.

What's the story of a bag of fertilizer before it gets to Jud Older's feed store? Jud can tell you all right. Because he has seen dried blood and tankage being made at the packing houses, and ammonium sulphate around coke and gas plants. He knows, too, about cotton-seed meal, fish scraps, nitrogen from the air, and nitrate of soda from far-off Chile.

Jud has samples in his office of phosphate rock from Florida and Tennessee from which we get most of our phosphoric acid. This rock won't dissolve in water, so it's treated with sulphuric acid and sold as superphosphate.

Jud caught me up the other day on the fact that this country is now making considerable of her own potash, rather than depending entirely on France and Germany. But I had him stumped when I started talking about manganese, boron, zinc, iodine, and copper. He'd never heard of these as fertilizers.

Well, I was reading recently about some Florida men whose tomatoes were unthrifty, had white spots on the leaves that looked like disease, and gave poor yields. Ordinary fertilizer did little good. But by using 50 pounds of manganese to the acre in addition to the ordinary fertilizer, they can grow good tomatoes, and other truck and forage crops which they couldn't raise at all before. This fact was discovered by the Soil Specialists of the Department's Bureau of Chemistry and Soils.

Most soils, of course, contain enough of these special materials. But if you aren't getting satisfactory results with ordinary fertilizer, you might talk to your county agent about your problem.

Second
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.-9-1)

(News Story.)

Wednesday, Feb. 2, 1931.

ANNOUNCEMENT: Now, take a deep breath. Change around so you'll be comfortable and listen to this one. We want to know which you prefer, this way or the way I just talked to you.

Drought emergency hints on buying field-crop seed, tips on how to add many years to the life of farm timber, sidelights on and newer developments in fertilizers are reported today by the U. S. Department of Agriculture.

Seeds for certain crops are much higher than usual, the Department states, in suggesting that farmers buy the lower-priced seeds. The seed situation is summarized by the Department's seed market specialists this way.

Alfalfa seed is lower and of better quality than last year. Further, it is lower than red clover seed because of the small red clover crop.

Both alsike and sweet clover are selling higher than last year because of short crops. The alsike clover seed is lower than 2 and 3 years ago, but sweet clover is the highest since 1926.

Timothy hay seed is the highest it has been in four years.

Prices on redtop and Sudan grass seed are also high. Redtop is the highest since 1926, and Sudan grass the highest since 1923.

Sorgo (or cane) seed of all kind is higher than last year, too.

Seeds that are selling for lower prices than last year are, soybeans, cowpeas, and millet. Soybeans and cowpeas, however, are higher than two and three years ago.

All of these prices are based on what growers have been receiving for their seed, rather than the prices dealers have been asking for it. Interested farmers may get facts on the price situation from their county agent.

The U. S. Forest Service men point out still another way of cutting farm costs. Creosote will extend the life of softwood fence posts by 15, 20, or even 30 years. This material is about the most effective yet found for preventing decay in farm timber which is exposed to the weather. It is also good for inside work where its color, odor, and so on are not objectionable.

If decay has already started, however, the creosote is not likely to check it immediately. This makes it necessary to start with sound timber. Seasoning the wood well and stripping it clean of bark before it is treated allows it to absorb more of the preservative than it otherwise would.

The "hot and cold bath" process is usually the most satisfactory for treating timber on the farm. To use this method, heat the timber an hour or so in a tank of creosote at 180 to 220 degrees Fahrenheit to drive out the air moisture. Then plunge it into another tank of creosote at about 100 degrees and leave it there about an hour. This draws the oil into the wood. If the timbers are too big to move easily, or you have only one tank, you can let the wood and the oil cool together after the hot bath. This accomplishes the same purposes as using a separate tank, but takes longer.

Directions for treating timber are given in, "Preservative Treatment of Farm Timber," Farmers' Bulletin No. 744. You may get it from this station. For information on patented preparations and other materials, as well as names of dealers, consult your local county agent or write the Forest Products Laboratory, Madison, Wisconsin.

Along with the buying of seed and the wind-up of the odd-job season, farmers are ordering their annual supply of fertilizer. Where this fertilizer is coming from is told by the soils specialists.

Nitrogen comes from a greater variety of sources than any other plant food. Nitrate of soda is imported from Chile. Ammonium sulphate comes from the coke and gas industries, and dried blood and tankage from packing houses. Other nitrogenous by-products are cotton-seed meal and fish scrap. Nitrogen is increasingly taken from the air.

Phosphoric acid comes from the large supplies of phosphate rock in Florida, Kentucky, and Tennessee and the west. This rock will not dissolve in water, so it is treated with sulphuric acid and sold under the name of superphosphate.

France and Germany furnish most of the potash, but in recent years considerable of it has been produced in the United States.

Nitrogen, phosphoric acid, and potash are the three principal plant foods which must be supplied to the soil and so are the ones found in ordinary fertilizer. But soil specialists from the Department's Bureau of Chemistry and Soils have shown that on certain soils, other elements such as manganese, boron, zinc, iodine, or copper must be added.

Tomatoes grown in a certain part of Florida were unthrifty, had white spots on the leaves that looked like disease, and gave poor yields. But by using 50 pounds of manganese sulphate to the acre in their commercial fertilizer, the growers can now produce good tomatoes and various truck and forage crops which they could not raise before.

Farmers who do not obtain satisfactory results with ordinary fertilizer may be able to get aid from the county agent in locating the trouble.

First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.-9-2)

(Check Style) Wednesday, February 4, 1931.

ANNOUNCEMENT: Now, ladies and gentlemen, here is the second in the series of experimental farm programs, which Station WGY is presenting in cooperation with the United States Department of Agriculture. I'm going to talk about garden seed today because, well, because everybody else in Fairfield County seems to be talking about it and because seed catalogs seem to be the books of the hour. Now, here's the idea: I'll talk for five minutes about some of the things my friend, Sam Jenkins, and I found in the 1931 catalogs; and then, in my second five minutes, I'll go right ahead and talk about the same things all over again, in a little different way. And after that, it is your turn to talk. I'd like for you, if you will, to tell me which of the two 5-minute Farm Flashes you liked the better -- and why you liked it better. All ready.

Well, to begin with, Sam Jenkins and I were remarking last night that styles in vegetables change just about as fast as styles in clothing and automobiles.

The big difference, according to Sam, is that new styles in vegetables are generally improvements; which is something he isn't prepared to say about new styles in clothes.

However, I'll say for Sam that he certainly keeps well posted on the new vegetable styles, even if he doesn't always have the fashionable number of buttons on his Sunday coat.

Right at present he is enthusiastic, particularly, about a new tomato called Break O'Day. Sam may have to wait until next year to plant it, because there still isn't much seed on the market. But it does look good. It is not only resistant to wilt -- as are also such varieties as Marvelosa, Marglobe, and Narduke -- but it ripens early; in fact, it ripens about 10 days earlier than Marglobe does.

This, by the way, is changing styles pretty rapidly, because as you know, the Marglobe is no old timer, by any means.

Well, speaking of new fashions, how does this one strike you? Here's a crook-neck squash without the crook. Somebody evidently decided that the kink is a nuisance when it comes to packing squashes into crates or baskets; and perhaps that it caused too much waste in peeling. So he developed this little yellow summer squash, straight from stem to stern.

Now, when Sam turned the page to cabbage, the same picture flashed into both our minds. It was a picture of Sam's cabbage patch last summer; on one side, row after row of plants slowly turning yellow and dying, and right next to them other rows thriving and making good heads.

Well, the reason was that the disease called "yellows" got a foothold in Sam's garden; and so he tried out some seed of a new variety which is resistant to yellows. It worked so well that Sam is not bothering with any other kinds this spring. The name of this new variety is the Wisconsin Yellows Resistant, and you'll undoubtedly find it advertised in your seed catalogs.

Now, there's one vegetable which is already one of Jenkins' favorites, and which I'd guess is going to be raised by a lot more people from now on. It is Italian broccoli -- which, as you know, looks something like cauliflower, but isn't, and doesn't taste like it. In fact, a good many people around here seem to think it tastes better.

Well, thumbing on through the catalog the next thing Sam and I stopped to discuss was spinach. He's planning to plant a comparatively new variety this year, called Norfolk Savoy, which is very resistant to disease. Of course, the older varieties, Curled Savoy and Bloomsdale Savoy, are still fine for first plantings under ordinary conditions, where disease is not a big problem.

Now, of course, in many cases the old tried-and-true varieties still seem to be the best. Anyway, this seems to be true of sweet corn, for Sam finds that the customers at his roadside market stay consistently partial to Golden Bantam.

And I guess we can include muskmelons in the same class, with Bender's Surprise still topping the list as one of the best bets for the Northeastern States.

And now, if you would like to get further information about either the new, or old varieties, write to Station WGY at Schenectady, or to the United States Department of Agriculture in Washington, D. C. We'll try to get you the information you want. And here are two bulletins that you might like to have for your Farm Business Library: "The Farm Garden in the North," Farmers' Bulletin No. 937, and "Fruit and Vegetable Gardens," Farmers' Bulletin No. 1242.

Second
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.---9-2.)
(Humorous Style)

Wednesday, February 4, 1931.

ANNOUNCEMENT: All right, now the first 5 minutes are up. Remember, I'm going to try now, to say the same things over again in a different way. And then, I'd like to know which way you like the better. Now, here goes, once more.

Well, the way styles in vegetables are coming and going these days reminds me of the little boy who declared he was going to quit school. He didn't see how he could ever learn to spell when the teacher kept changing the words all the time.

But, as Sam Jenkins remarked last night, there's one thing you can say for new styles in vegetables -- they are usually improvements, and not merely fads and fashions.

And, speaking of man's achievements in improving on Nature reminded Sam of an old Forest Service friend of his who once held a civil service examination for forest rangers, back in a little village in the Rocky Mountains. One of the questions was: "How are National Forests Created?"

Well, there was one man, an old cow-puncher, who knew, absolutely. Here's what he wrote: "The National Forests were created by the Almighty, but later enlarged by Theodore Roosevelt....."

Now, one of these 1931 improvements on Nature that struck Sam's eye particularly, is the new tomato variety called Break O' Day.

This variety, like Marglobe, Marvelosa, and several others, is resistant to wilt; and besides, it has the added advantage of ripening early -- about 10 days earlier than Marglobe, in fact.

However, I'd guess that Sam probably will have to wait until next year to plant Break O' Day tomatoes, because there still isn't very much seed on the market.

Well, until last night, I'd always thought that the high point of efficiency had been reached by the fellow who wrote:

"I eat my peas with honey,
I've done it all my life;
They do taste kind of funny,
But it keeps them on my knife."

Now, though, I'm not so sure but that this efficiency expert won't have to take off his plug hat to our plant breeders. This year they bring us a crook-neck squash without the crooked neck; the idea being, of course, to do away with the nuisance of the crook in packing little summer squashes into crates and baskets; and also, to reduce the waste in peeling.

Then, passing on to cabbage, Sam put a big check mark opposite the name of a new variety called "Wisconsin Yellows Resistant." The yellows disease showed up in Jenkins' patch two years ago, and last year it was much worse, so Sam isn't bothering with any but the new resistant variety this year.

Another of Sam's favorites is the new vegetable called Italian broccoli; and my own guess is that a lot more people will be raising it from now on. It looks something like cauliflower, you know; and some folks seem to like it even better than they do cauliflower.

And now we come to spinach; and I can't help recalling that remark of Old Uncle Jake Kennedy's. Speaking of spinach, Uncle Jake says that it may all be true that you have to eat a peck of dirt before you die -- but, thanking you very kindly, he would prefer to take his dirt straight.

Sam Jenkins, of course, raises a lot of spinach and sells a lot of it at his roadside market. And this year he's planning to try out a comparatively new variety he found in the catalogs. It is called Norfolk Savoy, and is supposed to be highly resistant to disease.

Now, on the other hand, not ALL of the best things are NEW, of course. Like the old-fashioned lady who bought a new-fangled electric washer, we still stick to many of our old favorites. You remember this lady didn't like her new washer so well -- because very time she got in it the paddles knocked her off her feet.

One of these old tried and true favorites, by the way, is Golden Bantam Sweet Corn. Sam's roadside market customers seem to stay consistently partial to Golden Bantam.

And I guess we can include muskmelons in the same class. You know, they used to say that the only way to tell a good muskmelon was to see a fortune teller; but I'd take my chances, I think, on that Bender's Surprise melon pictured in the catalog. Anyway, Bender's Surprise still tops the list as one of the best bets for the northeastern States.

And by the way, if you'd like to get more information about the new varieties, or the old ones, than you can find in the seed catalogs, write to Station WGY at Schenectady or to the U. S. Department of Agriculture in Washington, D. C. And here are two bulletins that you may want for your farm bulletin library: "The Farm Garden in the North," Farmers' Bulletin No. 937; and "Fruit and Vegetable Gardens," Farmers' Bulletin No. 1242.

First
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No. ---9-4)
(Regular Style)

Tuesday, February 10, 1931.

It's not everyone who's as lucky as Jim Todd -- having a clean, running stream, with a rocky bottom, cutting right through the middle of his farm.

Now there's Jack Kennedy, for instance, who doesn't have such a stream, and who used to carry water two or three times a day for his hogs. But, when Jack began to raise hogs on a bigger scale, he discarded his old wooden troughs and installed some automatic waterers. He says they're easier to keep clean, and you can keep a supply of water in them all the time so hogs can always get a drink when they want it. Incidentally, Jack has installed lamps to keep the water from freezing in cold weather.

Nowadays, there are home-made systems and manufactured systems to fit most all conditions. If you would like more information about them, you might get a copy of the bulletin called, "Hog-Lot Equipment," Farmers' Bulletin No. 1490.

Speaking of drinking water, before Jack got his new automatic system, he used to heat the water for his hogs during the winter; that is, he heated it enough to take the icy chill off of it.

Well, Jack and Dan Burns' foreman had an argument on that matter one day. The foreman couldn't see any point to warming water.

Jack's answer was this: "In the first place, an animal isn't going to drink as much water as it needs, if the water is ice cold. And furthermore, the feed that it has to use to offset the chill of the water is feed that it won't use in making milk or putting on weight."

Still speaking of hogs, I drove by Jim Todd's yesterday and found him engaged in what he calls "checking-up" before farrowing time. That is, he was looking over his sows to find out which ones, if any, were too fat or too thin.

When Jim finds a sow he thinks is putting on too much weight, he cuts her ration a little and sees that she gets more exercise. As I've told you before, Jim exercises his sows by scattering corn around over a big field so they'll have to roam around a bit for their meals.

Now as to what is a good gain for a sow to make between the time she is bred and the time she farrows, that's a pretty hard question to answer. Young sows, of course, will put on weight faster than old ones.

Jim is governed pretty much in the handling of his sows by what the men at the big government farm near Washington, D. C., say. (He says that he takes the figures from Uncle Sam's specialists and mixes in a good measure of his own judgment to meet his own conditions.) Anyway, these specialists believe that a satisfactory gain is anywhere from three-fourths of a pound to one pound a day.

I might say something, too, about the feed for a sow during gestation. Jim thinks a ration of around 10 per cent protein is about right. The ordinary fat hog, as you know, gets only 7 to 10 per cent protein. Jim feeds this protein of course, in the form of tankage of fishmeal.

Right in this connection you'll find some tips on feeding in our old reliable bulletin, "Swine Production," farmers' Bulletin No. 1437.

Well, I suppose you read in the papers about the cases of trichinosis in Buffalo, New York, last month.

As soon as Ma Robbins saw the account of it, she called the children in and read it over to them. She always has quite a time to keep them from eating little pinches of raw sausage or picking little pieces of pork out of the skillet before it is done. She thought this a good chance to impress upon them the danger of doing this. Because, as you know, this disease is caused in one way -- and ONLY one way: BY EATING RAW PORK OR PORK THAT IS NOT THOROUGHLY COOKED.

Well, I dug out my copy of a publication I have on the subject. Incidentally, the name of it is "Trichinosis, A Disease Caused by Eating Raw Pork." It is Leaflet No. 34.

You very seldom hear anything about trichinosis, however; and, as a matter of fact, not more than two hogs in each hundred slaughtered in the United States are infested with the little parasites that cause the disease. You can't even tell an affected hog when you see it, except, after slaughter, by examining its meat with a microscope, but even this is not dependable.

So, after all, the only thing we're particularly interested in is the one absolutely sure prevention: COOK ALL PORK THOROUGHLY.

Second
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.-----9--4)
(Questionnaire Style)

Tuesday, February 10,
1931.

ANNOUNCEMENT: Well, there're a few things about hogs that I have picked up in Fairfield's County. Now, I'm going to give you the same information in another form.

Well folks, last night as I dug into the pile of questions that you have been sending me, questions on hogs seemed to pop up oftener than any others. So today it'll be hogs.

Now, here's the first one: "I heard a man talking about automatic waterers for hogs, the other day. Can you tell me something about them?"

Well, in the big, hog-raising sections, automatic waterers are getting to be almost standard equipment. Of course, it's hard to beat a running stream, provided it isn't exposed to contamination. But if I had a good-sized herd, and didn't have a good stream of water, I think I'd install some kind of automatic waterer.

The point is: Hogs ought to have water when they want it and as they want it -- and they don't want it contaminated or frozen. As for the common, wooden watering trough, you know how hard it is to keep it clean, and how much watching it needs to keep the water above the freezing point in cold weather.

Incidentally, if you want information on automatic waterers, you may want to send for a copy of Farmers' Bulletin No. 1490, "Hog-Lot Equipment."

Speaking of drinking water, here's another question on the subject. "My neighbor heats the water he gives his hogs during the winter," this man writes. "Does it pay?"

Well, where it's a question of either heating the water, or letting the hogs -- or any other livestock, for that matter -- break ice to get a drink, I'd cast my vote for heating every time. Of course, if you have only a few hogs, and can put out fresh water often enough to keep it from freezing, that may do. Now, as to whether it pays to take the icy chill off water, I'd say that it does. In the first place, no animal will drink as much water as it needs if it is ice cold. And in the second place, it's cheaper for the owner to warm real cold water than it is for the hog to burn up valuable feed to do it.

Now, our next question is from a man who's new in the hog business. He has three sows that will farrow in about a month. He wants to know how much sows ought to gain during the gestation period.

Well, the hog experts on the big Department of Agriculture farm near Beltsville, Maryland, say a good gain for sows is between three-fourths of a pound to one pound a day for each 100 pounds of body weight -- from breeding time to farrowing. But naturally, a young sow may gain a little more and an older sow a little less. Of course, if a sow is gaining too fast, better give her a little more exercise and, maybe, a little less feed.

You'll find this matter taken up in that bulletin I've mentioned before called "Swine Production." It's Farmers' Bulletin No. 1437.

This same man asks: "What is a good ration for a sow before farrowing?"

Well, Uncle Sam's swine men suggest a ration with around 16 per cent protein. The ordinary fat hog, you know, gets only from 7 to 10 per cent. This protein comes, of course, largely from tankage of fishmeal.

Well, I suppose you read in the papers about the outbreak of the disease called trichinosis, in Buffalo, last month. One of our women listeners wants to know what causes this disease.

The answer to that question can be given in seven words. It is, EATING RAW OR ONLY PARTLY COOKED PORK. When you taste raw sausage to see if it is seasoned enough, for instance, you're taking a chance on trichinosis.

Now, what causes the disease in hogs? That's what another person wants to know.

Well, in the first place, not more than two hogs in a hundred slaughtered in the United States have trichinosis. In the second place, the hogs show no sign of the disease, as a rule, when they have it. As to the actual cause of the disease, there are little parasites that get in the muscles of the hog. But these parasites are so small that the specialists can't always find them when they examine the meat with a microscope.

By the way, you'll find more information on the subject in the publication, "Trichinosis, A Disease Caused by Eating Raw Pork," Leaflet No. 34. You can get a copy of writing to the U. S. Department of Agriculture, at Washington, D. C.

CLOSING ANNOUNCEMENT: Thank you, Mr. Robbins. Ladies and gentlemen, you have just heard County Agent Robbins in another Farm Flash program presented by Station WGY through the cooperation of the U.S. Department of Agriculture. Again today, Mr. Robbins was giving you the same information in two different ways -- as question and answers and in the language of Fairfield County. He would like to know which you like the better -- and why. I might remind you of the bulletins which you can obtain by writing to him in care of this Station. They are: "Hog-Lot Equipment" Farmers' Bulletin No. 1490; "Swine Production," Farmers' Bulletin No. 1437; and "Trichinosis, A Disease Caused by Eating Raw Pork," Leaflet No. 34.

First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-3)
(Regular Style)

Friday, February 13, 1931.

ANNOUNCEMENT: Ladies and gentlemen, this is the day and hour when Station WGY presents the fourth in a series of experimental farm programs broadcast in cooperation with the United States Department of Agriculture. First, I'm going to give you a regular five-minute talk on producing good hatching eggs and operating an incubator. Then, I'm going to give you the same material all over again but presented in a different way. After that, I want you to tell me which one of the talks you liked the better and why you liked one talk better than the other. All right, let's go.

Hello folks. I want to talk to you for a little while today about the hatchability of a hen egg. I heard Art Short and Mrs. Cal Wiggins staging a little debate on that subject the other day. Art stated that the failure of an egg to hatch doesn't necessarily mean that it's infertile, because many eggs of high fertility fail to hatch even under the best conditions of incubation.

The whole matter of hatchability is pretty complicated. Anything that causes a loss of almost half of all the eggs set, year after year, is bound to have more than one side. The United States Department of Agriculture has been doing a lot of work on the hatchability problem, and now I'm going to give you a few of the conclusions its specialists have reached.

First, hatchability depends on breeding -- that is, breeding PLUS selection. In other words, hatchability is an inherited characteristic, and that's why we're cautioned to be so careful in culling the breeding flock. High-producing hens don't always produce good hatching eggs, and yearling hens are generally preferred to pullets so far as hatchability is concerned.

Feeding is an important factor in the production of hatchable eggs. A good hatchability ration is one containing plenty of minerals, vitamins, green feed, milk, and BULKY feed. Alfalfa and milk have produced the greatest improvement in hatchability, but such feeds as yellow corn, ground wheat, and even soybean meal are also good when properly balanced with other feeds and minerals. Cottonseed meal is about the poorest hatchability feed.

Farmers' Bulletin No. 1541, on FEEDING CHICKENS contains a number of good breeding rations, and while we're talking about feeding the breeding flock don't forget the importance that direct sunlight or cod-liver oil and green feed have on the production of good hatchable eggs. One per cent of cod-liver oil is a good addition to the ration when hens are deprived of sunlight. Clean, comfortable houses and strict sanitation are also important in the production of good hatching eggs.

Last year Short installed an electric incubator which, as many of you know, is pretty largely self-regulating with the exception that every now and then it requires SOME VERY CAREFUL attention.

The operating temperature of an ordinary small incubator is from 102 to 103 degrees Fahrenheit, but the big cabinet machines operate at a lower temperature of from 99 to 100 degrees. Mr. Short makes an iron-clad rule of running his machine, whatever kind it is, for at least 24 hours before putting in the eggs.

The practice of cooling eggs is neither necessary nor desirable, but TURNING IS. Experiments indicate that turning every hour improves the hatch. Of course, that's too much turning especially if it has to be done by hand, but turning 3 or 4 times a day is desirable and considered profitable.

Moisture is one of the trickiest factors in incubation, and considerable moisture is needed during the latter part of the incubation period and at hatching time. Many large incubators are now equipped with automatic devices for regulating and recording the moisture necessary for a good hatch.

On Art Short's poultry farm, the eggs are always tested once -- and usually twice -- during the incubation period, and those with dead germs are removed from the incubator.

Art closes the incubator along about the 18th day and then doesn't open it again until the increasing "pip" -- "pip" -- "pip" indicates that the hatch is about complete. If you want further information on this subject, ask for a copy of Farmers' Bulletin No. 1538 called "INCUBATION AND BROODING OF CHICKS."

Second
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-3)
(Example Style)

Friday, February 13, 1931.

ANNOUNCEMENT: And now ladies and gentlemen, we're ready for the second part of this program. Just remember that I'm going to present the same material that I gave in the other program, but in a different way. You listeners are to be the judges. All right, let's go again.

"Experience is a dear teacher," so an old proverb asserts, and judging from the letters that come to us many poultrymen pay dearly for the lessons they learn from Professor Experience. Let's look at some of these true stories of the way poultrymen have learned to whip some of these problems that are always present at this season of the year.

Let's begin with the story of Mrs. John B. _____ up in Fulton County, New York. She put 15 eggs under every setting hen she had, year after year, and seldom got more than 7 or 8 chicks from a hatch. In fact, her hatches got worse instead of better. Finally, in desperation she went to the county agricultural agent who suggested that she improve hatchability by breeding up a better strain of birds. Well, to make a long story short, she took the tip and brought in some cockerels from a good bred-to-lay strain. The first generation of layers sired by these cockerels increased the hatchability up to the point where a setting of 15 eggs often resulted in 10 or 11 chicks.

Now here's a letter from Mrs. George C. _____ who lives near Catskill down on the Hudson River. She had good hens, good cockerels and fed them plenty, yet the hatches were very poor. Her neighbor's flock just across the road kept under very similar conditions produced eggs that hatched all right. Still another neighbor who lived down the river a little way produced good hatching eggs throughout the winter, and yet her layers were confined to the house all the time. An investigation revealed that Mrs. George C. _____'s laying house faced the North and that her hens were deprived of direct sunlight. Her neighbor's laying house just across the road faced the South and had a muslin curtain which was rolled up during sunshiny weather. The layers in this house, therefore, received direct sunlight. The neighbor who lived down on the river didn't bother about sunlight, but instead she fed a ration containing one per cent of cod-liver oil.

Listen to this story which comes from Mr. Alexander O. _____ who lives over in the edge of Massachusetts -- right close to Pittsfield, I believe. He tells a story about three of his neighbors. One was a dairy farmer who fed his laying flock plenty of milk. Hatches in this case were good. The second farmer raised sheep and his laying flock got plenty of good alfalfa. Hatches in this case were also good, but the third farmer ran a little short of concentrates and brought in some cottonseed meal. His layers got quite a bit of this feed and approximately two-thirds of their eggs failed to hatch at all.

So it appears that breeding, feeding, and sunlight -- or its substitute, cod-liver oil -- are all important factors in the production of hatchable eggs. If you want additional information on this interesting question of hatchability write for a copy of Farmers' Bulletin No. 1541, called FEEDING CHICKENS.

And now, let's follow one of those hatchable eggs that sings "My fate is in your hands," as it enters the incubator. Mr. John J. _____ up near Fairhaven, Vermont, says that Professor Experience is worth a lot when it comes to incubating eggs. He once bought a second-hand cabinet incubator. There was no instruction book with it so he operated it at a temperature of 103 degrees Fahrenheit which is the correct temperature for small incubators. His hatch was early, very poor and had many deformed chicks. His complaint to the incubator company brought an instruction book which clearly stated that their machine, like most cabinet incubators produced the best hatches when operated at a uniform temperature of approximately 100 degrees.

Mrs. Fannie U. _____ over near Concord, New Hampshire operated her first incubator without any moisture except what the eggs produced. According to the story, that hatch was very unsatisfactory with many chicks stuck in the shells, and many eggs pipped that didn't hatch. She took a tip from the county agent, supplied moisture and now she gets good, clean hatches of strong, healthy chicks.

My time is just about up but I can't close without telling you the story of John Paul I. _____ whose home is near famous old Saratoga Springs. He cooled his first incubator eggs religiously twice every day. And now, after several years experience, he gets good hatches without cooling the eggs at all. Elbow grease was required to turn the eggs in his first incubator -- and they got turned once a day after the novelty of the work wore off. He gets much better hatches now by turning the eggs 4 or 5 times every day throughout the hatch, but of course, it's done with a few turns of a crank.

The announcer has already told me to stop, and I'll do so by saying that it appears that a regular temperature, plenty of moisture, and plenty of turning are all mighty important factors in the incubation of eggs. If you desire further information on this subject ask for a copy of Farmers' Bulletin No. 1538, called INCUBATION AND BROODING OF CHICKS.

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to the fourth in a series of experimental programs broadcast from Station WGY in cooperation with the United States Department of Agriculture. You have heard both programs. Now won't you please write and tell us which program you liked the better and WHY you liked one style of presentation better than the other. Your cooperation will be highly appreciated both by this station and by the United States Department of Agriculture.

First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.-----9-5)
(Regular Style)

Wednesday, February 18, 1931.

ANNOUNCEMENT: Ladies and gentlemen, Station WGY presents the 5th in a series of 16 experimental farm programs broadcast in cooperation with the United States Department of Agriculture. Today's topics include -- BUILDING BIRD HOUSES, and SPRAYING FRUIT TREES. There will be two 5-minute talks on these subjects. Tell us at the end of the program which talk you like the better and WHY you like one talk better than the other. All right, let's go with the first talk.

Well folks, in opening this Farm Flash program I'm reminded of the top sergeant in the army who was doubtful whether he had issued enough arms, so after lining up the company he called out -- "All you fellows without ARMS hold up your HANDS."

Now all you listeners who failed to catch the subjects of today's discussion, hold up your hands while I repeat that I'm going to talk about BUILDING BIRD HOUSES, and SPRAYING FRUIT TREES.

I'm not a very old man but I can easily call back a dozen years when HALF the farmers in Fairfield County regarded birds as a nuisance. But times, like "milady's" skirts, have changed, and now we talk about this bird, and that bird being beneficial in the orchard, in the garden, or even down in the big fields.

The 4-H Clubs and the Junior Audubon Societies have been responsible for a lot of this increasing interest in birds. Sam Jenkins, one of our leading orchardists in Fairfield County has known for a long time that some birds destroy injurious insects, and also that other birds eat a few cherries now and then. Three years ago his boy -- a 4-H Club member -- wanted to build some bird houses. Well, Sam finally consented and the houses were built during the winter.

Sam's boy being anxious to attract birds to their farm put out feed for them during some of the worst of the winter weather. Naturally, when spring arrived many birds remained on the farm and nested in the new houses that had been provided for them. This pleased the boy, but it didn't affect Mr. Jenkins one way or another. He hadn't given the matter much thought.

However, orchard insects were especially destructive in Fairfield County that summer, but Sam Jenkins' orchard fared well and produced a very good crop of fruit because the birds kept the insects on the jump.

Since that experience every winter finds Sam Jenkins making a few new bird houses, repairing old ones, or trying out some new way to attract birds to their farm. Sam has every kind of a bird house imaginable from an auger hole in a fence post to a 5-story apartment. Of course, I can't begin to tell you in a 5-minute talk about all the different kind of bird houses that Sam builds -- or

that YOU can build on YOUR own farm. If you want the birds to help you control injurious insects -- provide houses for them to live and nest in, and if you want information on building more than a dozen different kinds of bird houses, ask this station for a copy of Farmers' Bulletin No. 1456 on HOMES FOR BIRDS.

While we're talking about orchards and fruits, let me remind you that the DORMANT SPRAY season is at hand. Lime-sulphur is widely used as a dormant spray but some growers prefer lubricating oil emulsion, because of its effectiveness and because it is less disagreeable to handle. Bob Early has found the lime-sulphur a very effective spray for controlling San Jose scale and pear-leaf blister-mite. It is also valuable in controlling oyster-shell scale, and the scruffy scale. As a fungicide the dormant application of lime sulphur is very effective in preventing peach leaf-curl.

Some of our local fruit growers make their own solutions of lime-sulphur, and some buy the commercial form already mixed. That, of course, depends on the number of trees to be sprayed, and other conditions, and is a matter for each individual to decide for himself. Lubricating oil emulsion is also a home-made product.

Lime-sulphur to be effective must be applied to all parts of the trees in the form of a fine spray. It's important, therefore, that the spray apparatus, especially the NOZZLE be in first class working condition when lime-sulphur is being used. It's also very important to keep the solution well mixed while the spraying is going on, and to take advantage of the wind, but I haven't time to go into details relative to these various points. They are all illustrated and carefully described in Farmers' Bulletin No. 1285, on LIME-SULPHUR CONCENTRATES. If you want information about making, buying, or using lime-sulphur -- ask this station to send you a copy of Farmers' Bulletin No. 1285, and you'll get it. The preparation of lubricating oil emulsion is described in Department of Agriculture Circular No. 263.

CLOSING ANNOUNCEMENT: And so we close the first part of this experimental Farm Flash program broadcast in cooperation with the United States Department of Agriculture. The second part will follow in just a moment. Farmers' Bulletin No. 1456, on HOME FOR BIRDS, and Farmers' Bulletin No. 1285, on LIME-SULPHUR CONCENTRATES were mentioned during this program. You may have copies of these publications by addressing your request to Station WGY.

Second
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.--9--5)
(Details Style)

Wednesday, February 18, 1931.

ANNOUNCEMENT: And now we're ready for the second part of this experimental farm program. Remember that I'm going to talk about the same subjects I discussed in the other talk, but this time I'm going to present it in a different manner. All right, let's go again.

Folks, I want to talk to you for a little while today about BUILDING BIRD HOUSES, and SPRAYING FRUIT TREES. I'll take up bird houses first.

The United States Biological Survey is author of the statement that 25 kinds of birds are known to feed upon the clover weevil, a like number on the potato beetle, 36 on the codling moth, 46 on the gipsy moth, 49 on the horseflies, 67 on billbugs, 85 on clover-root borers, 98 on cutworms, 120 on leaf hoppers, and 168 on wireworms. These are illustrations of the economic value of birds in general. Now if you want birds to help you control injurious insects -- provide houses for them to live and nest in, and make your place otherwise attractive to birds and bird life.

The bluebird is perhaps one of the most important insect destroyers, as well as one of the most beautiful birds in the WGY territory. Its coming is linked with the coming of spring, and since spring is close at hand, get out your pencil and paper and I'll tell you how to build a bluebird house.

Wood is perhaps the best bird house material for the New York territory. Hollow limbs or rough boards are preferable. Limbs are a little scarce in this section so let's build our bluebird house out of rough boards or rough lumber. The young bird can learn to climb better on rough lumber, that's why we use rough instead of dressed boards. The inside of the bluebird house needs to be 5 by 5 by 8 inches high; therefore a 1 by 7 inch board can be used. Cut the piece for the back of the house 9 inches long and the piece for the front 7 inches long. This permits the use of a sloping roof which sheds rain better, and also offers some protection for the door which is generally near the top of the house on the front or short side. Of course, the 2 side pieces are cut at an angle to fit the sloping roof which sticks out 3 inches on all sides. Nail the house together securely. Then fit the floor to the inside of the box, and about half an inch up from the bottom of the walls. Then hinge it to one wall and fasten it to the opposite one with a small hook or catch. The bottom is placed inside to prevent enemy birds from perching on it, and to protect it from the weather and rotting. The hinge permits cleaning which is very important. Now take an inch-and-a-half auger and bore a hole 6 inches from the bottom of the short or front side, and you have the door. Starlings are bad in the New York section, but they can't enter a house with an inch and a half opening. So encouraging bluebirds in this section is discouraging the troublesome Starling. Next, take a half-inch bit and bore one hole in each side up near the roof. This is for ventilation. Now, nail on the

roof, paint the box, and the job is completed. Bluebirds like a house on a post in or near the orchard and located so as to get some sun and some shade. They don't like dark trees, and their house should be from 5 to 10 feet above the ground. There are many other kinds of bluebird houses, as well as other bird houses illustrated and described in Farmers' Bulletin No. 1456, on HOMES FOR BIRDS. Station WGY will be glad to send you a copy of this bulletin.

While we're on the subject of orchards let me remind you that the DORMANT SPRAY season is at hand. Lime-sulphur is perhaps the most widely used dormant spray. It is made from a cooked mixture of lime, sulphur and water. Perhaps the most popular home made formulae is the one containing 50 pounds of stone lime, 100 pounds of commercial ground sulphur, and 50 gallons of water. Mix the sulphur with water until you have a smooth paste. The lime can be slacked with boiling water. The sulphur can now be placed in the cooking vessel and the lime added and also the remainder of the 50 gallons of water. Fifty minutes is the standard cooking time and the mixture must be well stirred throughout the entire cooking period, but especially at the beginning. Use goggles to prevent sulphur fumes from injuring the eyes.

As soon as the cooking has been completed strain the lime-sulphur concentrate through a brass strainer containing 20 meshes to the inch. When the mixture has cooled to 60 degrees Fahrenheit make the hydrometer test which for this mixture should be from 25 to 28.

In spraying fruit trees with lime-sulphur concentrate it is important that the mixture be agitated in some way throughout the operation. This aids in getting an even distribution of the materials in the mixture and also in securing a uniform flow through the nozzle of the sprayer.

New York orchardists have found that lime-sulphur is hard on nozzle washers, clothes, and human skin as well as San Jose scale, pear-leaf blister-mite, oyster-shell scale, scurfy scale, and peach leaf-curl. Wind is a great detriment to putting on a lime-sulphur spray so take advantage of calm periods for spraying.

Before starting your lime-sulphur campaign this season ask Station WGY to send you a copy of Farmers' Bulletin No. 1285, on LIME SULPHUR CONCENTRATES. I'm sure you'll find it instructive and valuable, and a postal card addressed to this station will bring that publication to your mail box.

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to the 5th in a series of 16 experimental programs broadcast from Station WGY in cooperation with the U. S. Department of Agriculture. You have heard both programs. Now won't you please write and tell us which program you liked the better and WHY you liked one style of presentation better than the other? Your cooperation will be highly appreciated both by this station and by the United States Department of Agriculture.

First
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.--2--6)
(Regular Style)

Friday, February 20, 1931.

ANNOUNCEMENT: And now we have another of those little experiments being tried out by the United States Department of Agriculture and Station WGY. First we will have our Farm Flashes presented in our usual way. Then we will have much the same subject matter in a somewhat different style. We want you to tell us which style you prefer, and why ----- Let's go!

Well, folks, from Hungry Ridge to Pleasant Valley, our Fairfield County chicken raisers are getting ready for their new crop.

Every edition of Editor John B. Tucker's "Fairfields Echo," is full of poultry ads and advice on incubation and brooding of chicks.

I tell Ma Robbins it is a surer sign of spring than the first robin or the boys playing marbles. It is a little earlier sign, too.

Our folks are so much interested in new chicks, I thought maybe you folks would be, too. So I'm going to talk to you about baby chicks and brooding. I want especially to say something about early hatching.

As Art Short says, "It's the early hatched bird that picks up the profits." The pullets that will lay next fall and early winter -- when eggs bring top prices -- will be from chicks hatched early this spring. And the early hatched cockerels will bring better prices than late-hatched stock when sold as friers, broilers, or roasters.

Then too, early hatched chicks make the best growth. They are pestered much less by insects than chicks hatched late.

Art doesn't hatch his own early birds himself. He buys 'em as baby chicks. You know, nowadays most folks can find a hatchery within easy shipping distance. And, everything considered, baby chicks are cheap. Of course, that doesn't mean the cheapest chicks are the best buys. Art Short says he finds it pays to buy accredited chicks, even at slightly higher prices; that is, chicks from flocks and hatcheries which have been inspected by the State authorities.

However, speaking of early birds, I stopped in Mrs. Frank Baker's the other day. She had already cleaned and disinfected her brooder house and equipment, and was trying out the stove to see if it was working right and would keep the proper temperature. She knows from experience that that is the way to insure good brooder operation.

Mrs. Baker plans to brood about 350 chicks. And, from all I can gather, that is about the right number for a one-stove brooder. It doesn't pay to crowd too many chicks together.

The best temperature at which to start the brooder is probably around 95 degrees. You start at 95, but you gradually reduce the temperature to about 85 after the first ten days. Then drop it down, slowly, to 70 degrees.

In brooding, however, it is not what the thermometer says about the temperature, but how the chicks feel about it. The right temperature is the temperature that is comfortable for the chicks. If they are comfortable, they will spread out around and under the hover of the large brooder, and some of their heads will be sticking out from under the cloth of the small hover.

On the other hand, if they are too hot, they are likely to be panting and gasping with their mouths open.

The idea is not to let them get either too hot or too cold. Art Short puts a wire or cloth fence around his brooder, to keep the chicks in near the stove for the first 3 or 4 days. Then he sets that screen out a little farther from the stove.

At the end of the first week, he takes the fence away, and uses the wire to put in the corners to keep the chicks from piling up.

There are a lot of other little points about incubation and brooding in the United States Department of Agriculture's bulletin on that subject. Ask for Farmers' Bulletin No. 1538. You can get it either from Station WGY or from the Department direct.

Second
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.-----9---6)
(Selling More Information)

Friday, February 20, 1931.

ANNOUNCEMENT: You have heard the first program in our experiment today. Now for the second. And then let us know which of the two you like the better, and why.

How good a poultryman are you?

Let's give ourselves a little test, and see what we know about chicks.

I will just take this Farmers' Bulletin No. 1538 on "Incubation and Brooding of Chickens," and figure out a few questions from it. Of course, hatching and brooding are not the whole of chicken raising; they are just the beginning.

But let's see what we know about these subjects. I will state the question. You can answer it in your own mind. Test yourself.

All right, Question No. 1: Why do early hatched chicks pay best?

What is your answer to that?

I'll bet you are thinking that early hatched chicks pay best because they produce the pullets that lay in the fall and winter, when eggs bring the best prices.

Well, that is the chief reason. But Farmers' Bulletin No. 1538 reminds us not to forget the male chicks. Early hatched cockerels bring better prices than late-hatched stock, when sold as friers, or broilers, or roasters. Then here's another reason why early hatched chicks pay better. They are out when the weather is best for growing, when there are fewer insect pests stirring.

All right, now for another question from Farmers' Bulletin No. 1538 -- No, I won't ask you that one. I started to ask: What are early hatched chicks? But I guess you all know that in this part of the world we mean those hatched in March or April.

And, by the way, our old stand-by No. 1538 reminds me that a lot of folks buy baby chicks from commercial hatcheries, instead of hatching their own.

That brings up the question: What are accredited chicks?

I'm going to answer that one, then I'm going to let you answer a few. Accredited chicks are chicks produced from flocks and hatcheries which have been inspected by State authorities. They are the safest kind to buy. Quality is important. Even if accredited chicks are not the cheapest priced, it generally pays to buy them.

But let's get on with our test. Of course, knowing facts about poultry doesn't make a poultryman. Let's make this a test of what we do as poultrymen. It is what you do that counts. This Farmers' Bulletin No. 1538 is based on the best paying and most thoroughly tested practices of practical poultrymen. Let's test our practices in brooding chicks against those in No. 1538. Ready!

How many chicks do you brood around a one-stove brooder?

Crowding too many chicks under a brooder is bad, you know. I just wonder, if you brood the same number mentioned in Farmers' Bulletin No. 1538, as being best.

Now, here's another question.

At what temperature do you start your brooder?

And how much do you reduce the brooder temperature after the first ten days?

Now here's one, most of you old chicken raisers will answer 100 per cent.

What do you use as your best guide to the right temperature? And while you are thinking that one over, here are a few more:

How do you keep your chicks under the hover the first few nights?

How do you tell when your chicks are comfortable?

And how do you keep the chicks out of the corners of your brooder houses?

These are all little questions -- simple questions -- I dare say, most all of you do the right things. But are you sure? The fellow who is uncertain whether he is doing right or not, is likely to get careless in the right things he is doing. You can test your practices against those followed by the best poultrymen by consulting Farmers' Bulletin No. 1538 on "Incubation and Brooding of Chickens."

ANNOUNCEMENT: Bulletin No. 1538 on "Incubation and Brooding of Chickens" is free while the supply lasts. You can get it either by writing to Station WGY or by writing direct to the United States Department of Agriculture, at Washington, D.C. And now which way did you like best?

First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No. ---9-7)
(Regular Style)

Tuesday, February 24, 1931.

ANNOUNCEMENT: And now for another of the series of experiments being made by the United States Department of Agriculture and Station WGY. We will present the same subject matter in two different styles, and ask that you choose which you like best and tell us why. Before this experiment is over, you will need paper and pencil; so get it handy ----- All right, now for the first way.

Hello, folks. We certainly had a fine outlook meeting down at the Pleasant Valley school house Saturday night. I guess it set a lot of our Fairfield farmers thinking.

I know it did in the case of some of our livestock men, because I've talked with several of them since.

There was Joe Warren, for instance. You know, Joe raises a lot of sheep. And he has been considerably worried about prices recently, but now he seems to be thinking a little more clearly on that subject.

Right now, as the Outlook Report shows, the fundamental situation of the lamb and wool industry seems to be less favorable than for either hogs or cattle. One big reason, of course, is that we have so many sheep. In fact, had more sheep in this country on the first of January this year than we have had at the beginning of any year since 1886. The number has increased 43 per cent since 1922.

If sheep producers are to improve their economic position materially, the problem, as you know, is to reduce the numbers of breeding stock, and to dispose of a bigger proportion of our annual lamb crop through slaughtering.

Now, just a word about the horse and mule situation. Back in 1920, we had about 25,000,000 horses and mules. Last year, we were down to 18,500,000. That's a big drop. And you probably know the main part of the answer, the automobile and the tractor.

By 1940, at the present rate of births of colts, we will have only 10,000,000 horses and mules. In fact, our experts foresee a shortage unless we raise more young horses to replace our old ones. They don't see much improvement in demand this year, but think demand and prices may pick up a little next year, especially the demand for mules.

That Outlook Report, by the way, is Miscellaneous Publication No. 108, in case you want to write for it. In regard to mules the Outlook Report says: "Farmers who are in position to produce good mules under favorable conditions probably will find a good market for young mules within the next four or five years."

But speaking of livestock in general, and getting around to hogs in particular, what happens around farrowing time has a lot to do with determining costs and efficiency.

Last week I told you about the way Jim Todd insures cleanliness and comfort for the sow and litters. Now I'll give you a few tips on the way Jim and Jack Kennedy and other Fairfield County hog growers handle the sow and pigs at farrowing time.

That is a two-man job. Jim Todd always appoints his boy, John, as his attendant, and Jack Kennedy uses his hired man.

They take a good-sized basket or tub, and line it with clean cloths, and heat it by a jug of hot water in the center. After the little pigs are thoroughly dried, they put the pigs in the basket and keep them warm and comfortable.

Another thing, Jim Todd is very particular to cut off those eight small tusk-like teeth pigs are born with. Jim uses sharp, sidecutting pliers. He cuts about halfway between the jaw and the point of the tooth. It is always dangerous to try to break or pull the teeth.

And right here, let me say Jim emphasizes that you should **STAY WITH THEM PIGS** to see that each one is nursing satisfactorily, and is kept warm and comfortable.

And now, I think if there is any other single point that needs emphasis it is that the sow needs water. After farrowing, it seems best she have lukewarm water at least every three hours.

You can get more complete details on caring for the sow and pigs from Farmers' Bulletin No. 1437 on "Swine Production."

Second
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.-----9--7)

(Pencil and Notes Style)

Tuesday, February 24, 1931.

ANNOUNCEMENT: Now get your pencils and paper ready. In this second part of our experiment today, we want you to use that pencil and paper. We are going to give you much the same subject matter in a way that calls for a few notes ---- Ready!

Yes, folks, we want you to listen with your hands as well as with your ears. This is your program, and we want you to take a part in it. You try to do with your pencil just what we tell you, and let's see if we can't all enjoy a little active listening.

Pencils ready, now! --- We are going to talk about the care of the sow and pigs at farrowing time.

Up in the right-hand corner of your paper draw a little square -- about an inch and a half square.

You'll see what this is for a little later. -- In that square, write these numbers 1 - 4 - 3 - 7.

All right, now come over here to the left-hand margin of your sheet of paper and write the Figure 1. Now, a little space below that, write the Figure 2. Drop down again, write 3. Then 4. And 5.

After the Figure 1. draw two little up-and-down lines.

After Figure 2. draw a little tub or basket -- just two horizontal lines and two sloping lines for the sides -- Write t-u-b on it. We are none of us artists. Just a rough outline is all you need.

After Figure 3. make a little something to represent a bucket. Write water beside it, so you'll know what it is.

After Figure 4. make four little short perpendicular dashes. And under those make four more.

After Figure 5. draw a stool.

Now back again to Figure 1, and those two little up-and-down marks. Write after them the words "two men." That is you and another fellow. That is just to remind you this is a two-man job.

Now after Figure 2 and inside the outline of that tub, draw a jug. That's filled with hot water. Set the jug in the tub, and some clean sacks, and you have a nice warm place to put the pigs after you have dried them off. Write after that "Keep pigs warm."

Now after that Figure 3 and the bucket write "Plenty of water."

Now Figure 4 and those four little marks upstairs and down, stands for those tusk-like teeth pigs are born with. You should cut those off. Better get Farmers' Bulletin on "Swine Production" for details on how to do that, and all these other things. You have the number, 1437, up in that little square. Better write Farmers' Bulletin beside that number 1437. ---- Maybe you want to know what that stool is for. You may be too busy to use it, but that is just to remind you to watch the sow and pigs carefully and constantly. Write after it "Stay on the job." If the quarters are comfortably warm, you may leave the pigs with the sow if she is quiet. If it gets cold, put the pigs back in the basket.

Now let's do a little figuring on the outlook for sheep and horses.

Draw six lines all the way across your paper. Make them half an inch apart. Move quickly. If your paper is already lined so much the better. Number the lines beginning at the top 1, 2, 3, 4, 5, and 6. Of course, this will be just a rough sketch. If you want the details on the outlook for sheep or horses or any other crop, get the Agricultural Outlook Report, Miscellaneous Publication No. 108.

Have you got these lines now? -- Run another line down the middle of the sheet. Divide those horizontal lines into two sections. We have two little stories for you.

Over the left-hand section write: "Sheep."

Then beginning at the bottom of Line 6, draw a perpendicular line up to Line Number 4. Over that write 1922. Now just to the right of that 1922 line, draw another running up nearly, but not quite, to Line 3. Mark that 1930. Those two lines show you how sheep have increased in the last eight years. The increase has been about 43 per cent, almost half again as many. We have more sheep now than at any time in forty years. That's one reason for low prices of lambs and wool and, although demand may increase some, our experts advise us to cut down on breeding stock and sell more lambs for slaughter.

Now over on our right-hand section, let's see about horses. Write "Horses and Mules" above that section. Now, as before, draw a line from Line 6, this time up to Line 1. Mark that 1920. To the right of that draw a second perpendicular line from Line 6 up almost to Line 2. Let that represent the number of horses and mules we had in 1930. You see there has been a big drop. But let's see what will happen if colt births continue at the present rate. Draw a third line up from Line 6 to Line 4. Write above that 1940. Put a question mark beside it. That's the prospect, and the reason experts say we need to breed more horses and mules to replace our old ones.

CLOSING ANNOUNCEMENT: You have heard the two programs on the same material. Which do you prefer and why? The bulletin on "Swine Production," Farmers' Bulletin No. 1437 and the Agricultural Outlook Report, Miscellaneous Publication No. 108, can be had by either writing to Station WGY or by writing direct to the United States Department of Agriculture, at Washington, D. C.

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First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-8)
(Regular Style)

Thursday, Feb. 26, 1931.

ANNOUNCEMENT: And now, we're going to try another experiment. This is the eighth in the series of 16 experimental programs which, as you know, Station WGY is testing out in cooperation with the United States Department of Agriculture. As usual, I'll say practically the same things in two different ways. And then, we'll appreciate it if you'll tell us which way you liked better. All ready. Here's the first way:

Well, I guess none of you folks is going to disagree seriously with the statement that "It pays to advertise."

However, you'd probably want to add, "With Reservations." There's a catch in it, of course. And I know of no better illustration of this catch, than the story of the Fairfield's Creamery.

I recall very vividly the grand opening of this creamery, just about seven years ago. I recall it vividly because the creamery manager believed in advertising. He advertised in the local papers, he put up posters, he sent out letters, and he even had the county brass band out for the opening day. He overlooked few opportunities to let people know about his butter. And yet, after the first six months, the creamery fell into what is commonly known as a rut. Business was not meeting expectations, and it showed no signs of getting better.

Well, to make a long story short, there was a reorganization; and Dan Burns, Fairfield County's leading dairy farmer, was elected president.

Now, Dan had ideas of his own about just what was rotten in Denmark; and he wasted no time and minced no words in airing his views at the first meeting of the new organization.

Dan's idea, in a nutshell, was this: Newspaper advertising, poster advertising, in fact most any kinds of advertising, are all well and good. Dan was strong for advertising, all right. But it was his belief that advertising should be supported in the style to which it claims to have been accustomed. That is, advertising is not going to be effective very long, unless the product behind it is of high quality, and something that folks actually want.

In still other words, advertising a creamery when the product is not what it ought to be, is putting the cart before the horse.

Well, the new creamery organization got busy along the lines Dan suggested.

First of all, they made it plain that the creamery's success was largely in the hands of the men and women who furnished the cream. They worked on the idea that, after all, a creamery's best advertisements are its patrons. You know, one well-known creamery expresses it this way: "Twenty-five hundred patrons, and every patron a field man."

The theory, of course, is very simple. If producers produce a high quality cream, and deliver it to the creamery in good condition, then the creamery in turn can make a high-quality product -- a product which is easy to advertise and easy to boost. And, if the creamery buys and sells on the basis of quality, both producers and creamery profit.

I might add that the Fairfields creamery almost doubled its business that first year after reorganization; and it has been forging ahead ever since.

You might be interested, by the way, in Miscellaneous Publication No. 37, called "Essentials for the Successful Operation of a Local Creamery."

But while we're on the subject, there's also a good story in a very similar experience of our Fairfields Cheese factory. And the hero of this story is the self-same Dan Burns who figured in the other one.

Things got to looking pretty bad and the cheese plant manager called Dan in for a consultation. He asked Dan to be the doctor -- to diagnose the case and prescribe a remedy.

Now, remember that Dan is a producer himself; and he isn't interested in the cheese plant, except as a producer. But he decided that the trouble lay, not in the plant itself, but back on the farms from which the milk came. For the most part, this milk was of only medium quality, and thus the cheese also lacked quality.

Well, on Dan's recommendation the manager decided to put on a little campaign. They asked me to help, and we called several meetings. We emphasized the two C's -- Cleanliness and Cooling. We suggested that dairymen remove milk from the stables immediately after milking, and then cool it to at least 60 degrees Fahrenheit, and hold it at as low a temperature as possible until delivered to the factory. And of course, we talked about other important points, such as keeping the cows clean, washing and scalding milk utensils, avoiding feed flavors and odors, and so on.

Well, we still hold these meetings, regularly, to talk over problems; and I believe you'd be surprised at the improvement that has come just in these last two years. It has paid the dairymen, because they got premium prices for high quality milk; and of course it has also paid the cheese plant, because they, also, sell their cheese on the basis of quality.

Incidentally, you might be interested in Miscellaneous Publication No. 42, called "Points to Consider in Establishing a Cheese Factory."

Second
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.-9-8)

(Fable Style)

Thursday, February 26, 1931.

ANNOUNCEMENT: Ladies and gentlemen, you have heard the first program in our experiment today. Now for the second. And then, we'd like for you to tell us which of the two you like the better, and why.

Well, 2,600 years ago a wise man by the name of Aesop cautioned us against crying "Wolf," when there was no wolf.

You remember that happened to the shepherd boy who cried "Wolf," just to cause a little excitement. After two or three false alarms, folks paid no attention to his cries. And so, when the wolves actually did come, the boy's shouts for help went unheeded; and the wolves ate up all the sheep.

But, even longer ago than 2,600 years there was the sad case of the Great North Pole Wazookus.

The Wazookus was a fairy-tale creature, something like a dragon. But anyway, the legend tells us that it was noted for two things: its appetite and its powerful vocal chords. It possessed the loudest voice in the world; but otherwise it was practically helpless, and useless.

Now, naturally the residents of the North Pole used the Wazookus for the one thing it was good for. They used it to stand guard over their villages during the six months long winter nights. They relied on the noise made by the Wazookuses to scare away all invaders.

But the people made one mistake. They went to sleep. They put too much faith in the voice of the Wazookus, and so they left no one on duty to ward off possible attacks.

Well, naturally it wasn't long until the invaders on the outside of the camp discovered how the land lay. And they began to suspect that, after all, the Wazookus had no weapon but its loud voice.

You can imagine what happened then. And ever after that, according to the legend, the North Pole folks took turns sleeping; that is, they cooperated. They kept their Wazookuses on guard, all right, but they didn't leave everything to the Wazookus.

Now, the moral of this tale seems to be that a loud voice is a good asset; but that an alert eye and a good stout club are more effective in a fight.

Now, let's come down to modern times. Take a modern creamery, for instance, in its fight to succeed. Very few folks will deny that it pays a creamery to advertise. But occasionally we might all ask ourselves these questions: "Are we

advertising on a wazookus basis? Are we feeding a loud voice, and then going to sleep and depending on that voice to do all the work?"

This DOES happen, you know. And as a result, those creameries have found that advertising is not effective very long unless there is a power behind it which MAKES the advertising effective. That power, of course, comes from a good-quality product, which people want. And behind this, is the cooperation of the creamery patrons themselves who must bring in high-quality cream if the creamery is to manufacture high-quality butter. Some modern wise man has put it this way: "After all, a creamery's best advertisements are its patrons."

Or, in the same way, take a cheese factory. You know, cheese factories are finding that what happens on the farm, where the milk is produced, is just as important as what happens in the factory, where the milk is made into cheese.

Going way back into fairy-tale days again, there is an old, old story, with a very modern point to it. You know, there was once a great stir among all the beasts of the jungle, as to which could boast the largest family. They finally came to the lioness. "And how many do you have at birth?" they asked her.

The old Lioness replied very grimly. "Only one," she said, "but that one is a LION."

Which, translated into modern English, means that Quality comes before Quantity.

The cheese factories which are most successful are those whose patrons practice the two C's -- Cleanliness and Cooling -- and the other methods which result in clean, high-quality milk.

And buying and selling on the basis of quality is not only profitable to the cheese factory; it is profitable to the producer. In this case, he gets premium prices for high-quality milk and thus gets well paid for a little extra trouble.

In concluding let me mention two bulletins which you may want for your Farm Library: "Essentials for the Successful Operation of a Local Creamery," Miscellaneous Publication No. 37; and "Points to Consider in Establishing a Cheese Factory," Miscellaneous Publication No. 42.

ANNOUNCEMENT: Ladies and gentlemen, you have been listening to another of experimental programs which Station WGY is presenting in cooperation with the U. S. Department of Agriculture. Remember, we should like very much to know which of today's two programs you liked better. And remember, also if you want copies of either of those publications, write either to Station WGY or to the Department of Agriculture in Washington, D. C. The titles and numbers, again, are: "Essentials for the Successful Operation of a Local Creamery," Miscellaneous Publication No. 37; and "Points to Consider in Establishing a Cheese Factory," Miscellaneous Publication No. 42.

First
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.---9-1)(2)
(Regular Style)

Tuesday, March 3, 1931.

ANNOUNCEMENT: And now, folks, here is the ninth experimental program in the series which Station WGY is presenting in cooperation with the United States Department of Agriculture. May I explain, again, that we should like very much to get your personal reactions to these programs. I'm going to talk about the same things now, in two different ways; and then I'd like to know which way you liked the better -- and, of course, WHY you liked it. All set now, for the first way.

Last year my Fairfield's County friend, Charley Kennedy, had some trouble with the ailment called "Thumps," in his young pigs.

You know what "thumps" is. It is the term generally applied to a peculiar spasmodic action of the diaphragm, which usually occurs during the first week or 10 days of the pig's life.

Well, this spring Charley is taking a leaf from the experience book of his brother Jack. Jack Kennedy, you know, is Fairfield's County's biggest hog-raiser, and he has a good scheme to fight shy of trouble from "thumps."

Jack has found, first of all, that there seems to be no cure for "thumps" but that there is almost a sure PREVENTIVE. The preventive is plenty of exercise; and here's what Jack does.

In the first place, he keeps a careful watch for indications of a roll of fat over the necks of his young pigs. Then, if indications do develop, he turns his 10-year-old boy loose with a switch; and Jack, Jr., chases the pigs around for several minutes. This treatment is applied 3 or 4 times a day, and it is repeated daily until the trouble disappears.

And now, while we're still on the subject of hogs, let me mention again two bulletins that come in mighty handy around farrowing time and after. One is "Swine Production," Farmers' Bulletin No. 1437; and the other is "Diseases of Swine," Farmers' Bulletin No. 1244.

Well, I dropped in on Tex Austin, the beef cattle man, the other day and found him repairing his dehorning chute.

Charley Kennedy was there before me. Charley has a few calves this year, and he was absorbing a few tips on dehorning.

"If I were you," Tex was saying, "I'd use caustic potash. It is a good method for small herds, and it works best on young calves -- so I don't see why it isn't YOUR best bet."

Tex himself, of course, uses mechanical dehorner. He has a large herd; and he finds that mechanical dehorner pay, because they will handle large numbers in a short time.

On the other hand, saws are very satisfactory, where there are only a few cattle to dehorn; and quite a few Fairfield County farmers with small herds, use them.

In any event, Tex advised Charley always to dehorn while the cattle are young, if possible. Then the operation is much less severe.

He also gave us some of the benefits of his experience on why he found dehorning profitable. But all you cattle men are familiar with the reasons, so we won't go into that. It is enough to say that dehorned cattle usually bring from 25 to 75 cents a hundredweight more than horned cattle of equal quality and condition.

Now, if you want details about any of the points that come up in dehorning, write for a copy of Farmers' Bulletin No. 1600.

But speaking of dehorning being a paying proposition, let's go from Tex Austin's on up through the Hungry Ridge hills to Joe Warren's place. You know, Joe is a sheep man -- and he has some very definite opinions on the question of docking lambs.

Joe can, and will, tell you that docking his lambs has paid him big dividends. And these, in his opinion, are the reasons:

In the first place, there is the psychological influence of neat appearance. There seems to be no doubt that buyers prefer lambs which do not have long tails.

But there is also another and very practical reason. Docked lambs not only LOOK neater and cleaner, but they ARE cleaner. And consequently they are less subject to complications from disease troubles.

Joe, like most sheepmen, docks his lambs while they're between 7 and 14 days old. He removes the tail $1\frac{1}{2}$ inches from the body.

And by the way, if you raise sheep, let me suggest that you get a copy of Farmers' Bulletin No. 1134, on "Docking Lambs." It is a good one to have in your farm library.

ANNOUNCEMENT: Ladies and gentlemen, you have been listening to the livestock FARM FLASHES. If you want copies of the bulletins mentioned today, write for them either to Station WGY or direct to the United States Department of Agriculture in Washington, D. C.

Second
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.---9-1)(2)
(Straight Talk)

Tuesday, March 3, 1931.

ANNOUNCEMENT: Well, there is the first program in today's experiment. Now, here is the second one.

Ladies and gentlemen, right now is a mighty important time in the lives of your young livestock.

You all know that what happens to young pigs and calves and lambs when they ARE young, has a lot to do with what happens to your own income.

Now, among many other things, this is the time of year when hog-raisers sometimes have trouble with the little-pig ailment known as "thumps."

Beef cattlemen are getting ready to dehorn their calves and young stock.

The season for docking lambs is coming near.

First of all, let's look at this trouble called "thumps" for a minute. As you know, thumps is the term applied to a peculiar spasmodic action of the young pig's diaphragm, usually coming during the first week or 10 days of the pig's life. However, it is not necessarily associated with breathing. On the contrary, it is usually caused by none other than our old friend, Lack of Exercise.

There is apparently no cure for "thumps," but plenty of exercise IS almost a sure PREVENTIVE.

First of all, watch for indications for a roll of fat over the neck. Then here's a suggestion. If you have a small boy, he would undoubtedly think it a lot of fun to get into the pen or into the alley of the farrowing house, and chase the pigs with a switch for several minutes three or four times a day, until the trouble disappears. If you don't have a boy, I suggest that you do it yourself.

Now, here are two bulletins that give valuable help on the questions which usually come up at, and after, farrowing time. They are "Swine Production," Farmers' Bulletin No. 1437; and "Diseases of Swine," Farmers' Bulletin No. 1244.

Now, let me mention just a few commonly accepted facts about dehorning cattle.

First of all, it pays to dehorn. To be convinced of this we need stop only long enough to consider one cold dollars-and-cents fact: Dehorned cattle usually bring from 25 to 75 cents a hundredweight more than horned cattle of equal quality and condition.

Then, it also pays to dehorn cattle when they are young. Obviously the operation is much less severe for calves than for older cattle.

Now, what are the best methods of dehorning?

Well, in the first place there is caustic potash. It is a good method for small herds, and it works best on young calves, where the horns are simply small buttons.

Then, there are dehorning saws. They are very satisfactory especially if you don't have a large number of cattle to dehorn in a hurry.

Third, there are the mechanical dehorners of various types. For a large herd, mechanical dehorners generally pay, because they will handle large numbers in a short time.

Now, if you want details about dehorning, write for a copy of Farmers' Bulletin No. 1600 on "Dehorning, Marking and Branding Beef Cattle."

Coming to sheep, there seem to be two main reasons why it pays to dock lambs,

In the first place, neat appearance has an important psychological influence when the lambs are marketed. There is no doubt that buyers prefer lambs which do not have long tails.

The second reason is a very practical one. Docking not only makes the lambs look cleaner, but it actually MAKES them cleaner. That is, they are more sanitary; and so less subject to complications from disease troubles.

Most sheepmen, by the way, agree that the best time to dock lambs is somewhere between the ages of 7 and 14 days. The tail, of course, is removed about $1\frac{1}{2}$ inches from the body.

And, in connection with docking, let me call your attention to Farmers' Bulletin No. 1134, called "Docking Lambs."

Now, the three points I've talked about today may be just three drops of water, you might say, in the whole bucketful of things that come up at this time of year. But as you know, they are apt to be mighty BIG DROPS.

I think it will pay hog-raisers to watch out for that roll of fat on the necks of young pigs; and then to see that the pigs get plenty of exercise.

And I believe, very firmly, that it pays to dehorn cattle; and, to dehorn while the cattle are young.

And I believe, just as firmly, that docking lambs is a paying proposition.

I believe these practices pay, because the experience and cash incomes of the farmers who follow them, back up this belief.

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to the ninth in the series of experimental programs which Station WGY is presenting in cooperation with the United States Department of Agriculture. If you'd like to get copies of those bulletins mentioned in today's programs, write either to Station WGY or direct to the Department of Agriculture in Washington, D. C. The titles and numbers, again are: "Swine Production," Farmers' Bulletin No. 1437; "Diseases of Swine," Farmers' Bulletin No. 1244; "Docking Lambs," Farmers' Bulletin No. 1134; and "Dehorning, Branding and Marking Beef Cattle," Farmers' Bulletin No. 1600.

And remember, we'll appreciate it very much if you'll write in and tell us which of the two programs today you liked better, and why you liked it.

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First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-2) (2)
(Regular Style)

Thursday, March 5, 1931.

ANNOUNCEMENT: Ladies and gentlemen, you are now invited to judge the tenth in a series of 16 experimental agricultural programs broadcast by Station WGY in cooperation with the United States Department of Agriculture. The subject for this program is DAIRYING and the topics of discussion include FEEDING A LOW PRODUCING COW and FEEDING A HIGH PRODUCING COW. These topics will be discussed in two different styles. Write us at the end of the second talk which style of presentation you like better, and WHY you like one style better than the other. Here we go with the first talk.

I have been telling you quite a bit about how Fairfield County farmers plan the feeding of their high-producing cows to get best returns. But I haven't been saying so much about how they feed the low-producing cows to get the most milk at the least feed cost. Let's see how our leading dairymen manage that part of the feeding operation.

There is Dan Burns, for example. Dan makes a practice of feeding his low producing Jersey cows ALL the LEGUME hay they will eat, but NO grain, unless the cow produces more than 10 pounds of milk a day.

Frank Baker's is a Holstein herd. He follows the same general plan as Dan, but of course he has to give his bigger cows more feed than Dan's smaller Jerseys get. So Frank's low-producing Holsteins (and of course I mean low producing because of the stage of lactation they are in, not inherently low producers. If Frank or Dan find in their herds any inherently low producers they don't waste feed on them.) Well, Frank's low-producing Holsteins get plenty of hay and silage, just like Dan's Jerseys, but NO grain goes to any cow that isn't producing more than 16 pounds of milk a day.

"But," other dairymen around the county have asked Dan or Frank, "suppose you have only good mixed hay?" Their answer always is, "give the low-producing cow all the hay she will eat, plus a couple of pounds a day of either linseed meal or cottonseed meal. That gives your low producers enough protein."

A lot of you, I know, want a little more definite formula than I have given you. You want to know about rations for producers giving somewhat more than the minimum. I put the question to Dan before I came here today. Here's the way he answered:

"I have found an economical ration for the low producer to be based on 3 pounds of concentrates and from 9 to 12 pounds of hay, according to her size. I say this ration is based on the 3 pounds of concentrates and 9 to 12 pounds of hay, because that amount of concentrates and roughage will keep up the body of the cow in good condition. All that you feed her over and above the 3 pounds of

concentrates and 9 to 12 pounds of hay goes into milk. Now, I figure out the rest of the ration according to the production of the cow, and her breed.

"I give a Jersey cow six-tenths of a pound of concentrates for every pound of milk she produces a day. If I had Holsteins like Frank Baker, I would give them four-tenths of a pound of concentrates per day for each pound of milk."

Let's take Dan's formula and figure it out for a Jersey toward the end of her lactation period, giving 20 pounds of milk per day. She gets probably 10 pounds of hay a day, and she gets 3 pounds of grain in the basic ration. Then she gets six-tenths times 20 pounds of grain, or 12 more pounds of grain. Plus three that's 15 pounds of grain. Or, 10 pounds of hay and 15 pounds of concentrates daily, as long as she produces 20 pounds of milk.

But, I hear some one rising to remark, "But, how about one of Frank Baker's Holsteins giving 80 pounds of milk per day? That formula would give her 35 pounds of concentrates daily. Can she handle it?"

I put that one to Frank Baker. And Frank admitted that he was afraid to go stronger than 20 or 21 pounds a day of concentrates in the ration of any cow.

"But," he told me, "But I have another formula to take care of the heavy producer. Here it is. Give 'em ALL the GOOD roughage they will eat. Then give one and one-half pounds of grain for each 100 pounds live weight. Now this grain is in addition to the 3 pounds they need for keeping up the body. So, say my 80-pound Holstein producer weighed 1200 pounds. I would feed her 21 pounds of grain plus all the good roughage she would clean up. Figure it out. I also help out the hay part of the ration with five or six pounds of beet pulp or other root crops in each day's ration."

Well, there are the formulas followed by two of our best Fairfield County dairymen in feeding according to the production of their cows. I am frank to say that I think they cribbed the formulas from a new Farmers' Bulletin of the United States Department of Agriculture. It's Farmers' Bulletin No. 1626 called "Feeding Dairy Cows." Write to me for it if you wish to study out those formulas.

ANNOUNCEMENT: Now there's one way of telling this true story of how to apportion grain to milking cows. We try another way next. Just a pause for you to write down the number of Farmers' Bulletin No. 1626 on "Feeding Dairy Cows," and we start again. Remember, the facts are the same. I'm just giving them to you differently. I want to know, and so does Station WGY and the United States Department of Agriculture, which way of telling the facts you like better. Now for the second method.

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Second
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.----9-2) (2)
(Humorous Style)

Thursday, March 5, 1931.

Folks, I want to talk to you for a little while today about feeding dairy cows. A great many dairymen have learned that the word FEEDING has more than one meaning. That reminds me of a story of a school boy who was asked to write a poem using the word RANSOM in such a way as to show that he understood its meaning.

At the appointed time the school boy arose and read the following poem:

"Away down south in the Argentine
A tom cat rode on a sewing machine.
The wheel went round with a dreadful wail,
Took ninety-nine stitches in the tom cat's tail,
And the tom cat ran-some."

Of course the teacher's definition of ransom didn't quite agree with the boy's definition, and the definition of the word feeding when applied to a low producing cow doesn't always agree with the meaning of the same word when applied to a high producing cow. There are a lot of low producing cows in the world and many of these sisters fail to give much milk simply because they don't get enough feed. It's a good time to stop, look and listen before crossing a railroad track -- or feeding a dairy cow.

For instance, a low producing dairy cow, according to many successful dairymen, ought to be fed according to her production. For body maintenance she requires a daily ration of 3 pounds of grain and from 9 to 12 pounds of hay according to her size and model. For a production ration feed a Jersey cow six-tenths of a pound of grain for every pound of milk produced; a Holstein four-tenths of a pound of grain for each pound of milk, and in addition, give either one a kindly pat on the back every time you pass her way. You know cows and sweethearts are similar in that they both like affection. If a boy wants to make up with his sweetheart he often gives her a box of candy. Some dairymen fool their cows in a similar manner by feeding them according to size, type and production. For instance, an 800-pound Jersey producing 20 pounds of milk a day needs 15 pounds of grain and about 10 pounds of hay to keep her hitting on all four. I can't prescribe for an 800-pound sweetheart. That's the boy's job.

Now let's forget the low producing cows for the time being and open the feed box in favor of the high producers -- the ones that make the income climb.

Feeding the high producing cow requires careful planning and meditation. It's like the billy goat that said, "This is food for reflection," as he ate up his first looking-glass. Again, feeding a high producing cow is like walking

a wire rope -- balance is the thing that counts. For instance, even a high producing cow can't make milk out of much more than 20 pounds of grain a day. If her production calls for more nourishment than 20 pounds of grain can furnish -- then give her 5 or 6 pounds of beet pulp or some other root crops, and all the good hay and silage she will eat. In other words, fill her up on soup before she gets to the fried chicken.

Feed a high producing cow all she will eat and then keep an eye on the milk bucket and the cream checks, and if they get to the point where they don't look good -- do something about it.

Some dairymen get the idea that if they could just swap off their sorry cows that they didn't need for high producers, they would be on the road to prosperity. Well, maybe so. But remember the ladies of the Helping Hand Society down at Opelika, Alabama, who held what they called a SWAP social one Friday evening? Everybody brought something they DIDN'T NEED, and the local paper stated that many of the ladies were accompanied by their HUSBANDS.

Of course you can't swap off husbands very well, if you could I would have been gone long ago, but I have seen tough looking jobs improved under good management. Likewise, there are many low producing dairy cows that could be made to produce more under improved feeding and management.

And now folks, nine of the ten minutes assigned for this experimental program have tiptoed out of the dairy barn to join the old belled cow that goes trotting down the land, kicking up the dust in the road. If you want additional information on this subject of feeding all kinds, types, shapes, models, and sizes of dairy cows, ask Station WGY to send you a copy of Farmers' Bulletin No. 1626, called "Feeding Dairy Cows."

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have heard the two experimental programs. Which one did you like best? Your answer to this question on a postal card or in a letter will be appreciated both by Station WGY and the United States Department of Agriculture. If you desire a copy of Farmers' Bulletin No. 1626, on "Feeding Dairy Cows," we'll be glad to send it to you.

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First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-3) (2)
(Regular Style)

Monday, March 9, 1931.

ANNOUNCEMENT: Again today I'll talk to you for 5 minutes about current farm topics as I meet up with them in Fairfield County. Then, I'll give you the same information again, but in a different style. Station WGY and the United States Department of Agriculture will appreciate having you write telling which program you like better. Now for the first style.

After I talked to you the other day about testing your soil to see whether or not it needs lime, I got a regular flood of questions as to which crops need lime and which do not.

Well, I think most people will agree that there is no hard and fast rule on this matter. But there are some more or less general principles -- and these are what I want to call attention to now.

My friend Bob Early believes you'll never go wrong by liming alfalfa and some kinds of clover -- if your soil is acid. He also includes Kentucky bluegrass in the list of crops which can't stand strongly acid soil.

There are several other crops, too, which Bob and other Fairfield County farmers find will pay for applications of lime. These include peas, corn, wheat, timothy, cowpeas, and soybeans. Bear in mind, of course, that these men always test the soil to see how much lime it needs.

Well, after you finish this list of crops, you'll find several others about which there is uncertainty; or, at least, you could say that they are less benefited by lime than the crops I just mentioned. Among these I would single out alsike, and Japan clover. I would also name rye, oats, redtop grass, and millet, as well as sweetpotatoes, strawberries, and blackberries.

Among the questions I've been getting I find an occasional one on potatoes. Well, as you know, we usually think that potatoes, tobacco, and watermelons don't need lime; in fact they may be injured by it. But even there, I would like to make an exception. Now there's Roy Meek, for instance, who has a patch of land that is what you might call extremely acid. He has found, in growing crops on this soil, that a little lime will help even potatoes and other acid-loving plants.

If you could draw any general conclusions about the use of lime, I think it would be this: There is no definite rule about the lime needs of various crops. Your best bet is to get your county agent to test your soil and make suggestions in the light of what he has observed on various farms in your neighborhood.

I might call your attention, by the way, to the bulletin called, "The Principles of the Liming of Soils." It's Farmers' Bulletin No. 921.

Now pasture is another crop which often needs lime. I've seen quite a number of pastures in Fairfield County which were greatly improved when lime was applied. But, of course, there again it's a matter of testing the soil to see what your particular pasture needs.

But, while there are perhaps many pastures which don't need lime, I don't believe that you'll find many that won't pay a big dividend on fertilizer. I've noticed here in Fairfield County that the farmers who have pasture the earliest in the spring are the ones who use fertilizer. Their pastures are also the ones which will carry the largest number of livestock to the acre.

When I was up at Frank Baker's the other day he was at work spreading manure on his pasture. He uses anywhere from 5 to 10 tons to the acre. He believes that it is about as satisfactory to apply it in the early spring as in the fall.

Now, as Frank says, he uses manure on his pasture simply because he has more than he needs for his cultivated crops. But there's Sam Jenkins, on the other hand, who needs all the manure he can get for his vegetable garden. So he uses a commercial fertilizer instead of manure. He applies from 50 to 100 pounds of ammonium sulphate, nitrate of soda, or some other nitrogen-carrying fertilizer every year.

Well, after you've applied the nitrogen -- or the manure -- your job of fertilizing is only half done. Your pasture also needs some phosphorous. Frank Baker thinks that a pasture needs about 250 pounds of superphosphate to the acre every four years. In fact, the manure or nitrogen will not give real returns until that phosphorous need is supplied.

While speaking of the benefits of fertilizing the pasture, I might repeat a point made by Dan Burns. He says that if your pasture is overrun by weeds, he knows of no better way to get rid of them than by applying superphosphate, nitrogen in some form -- and lime, if the pasture needs it.

Second
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-3) (2)
(Example Style)

Monday, March 9, 1931.

ANNOUNCEMENT: Now, ladies and gentlemen, I'm going to give you the same information over again, but in a different style. I would like to know which style you prefer. All right, here we go again---

Over in the southeastern part of Cayuga county, not so very far from Owasco lake, there is a farmer who has an interesting story of the results he got from using lime. So I'm going to give you the story in his own words.

"Since the soil on my farm is rather poor," he says, "I have always used considerable manure and fertilizer. I've also grown green cover crops to turn under. But, in spite of this, it always seemed to me that my yields were too low. My meadow usually averaged less than a ton of hay to the acre, and my corn yielded around 20 or 25 bushels to the acre.

"Well, back in the summer of 1926 I began to wonder if lime would help. So I asked our county agricultural agent to make a test of my soil. He found that the soil was slightly acid, and suggested that I use between 600 and 1200 pounds of lime to the acre.

"When I planted my next crop of clover and timothy, I applied the lime as the county agent had suggested. Instead of the usual yield of about a ton, I cut around two tons of hay to the acre on that crop. The next year, again, I got almost double my former yields.

"In 1929 -- the third year of the rotation -- I planted corn. I harvested 40 bushels rather than the 20 or 25 bushels that I used to get. I don't believe, however, that all of this increase was due directly to the lime. I think a considerable part of it was due to the improvement of the timothy-clover sod which I plowed under.

"For the fourth year of the rotation, I planted oats. But my yield was not especially big. However, I figure that the visit to my county agent, and the buying of 800 pounds of lime has left me 2 tons of hay and 14 bushels of corn to the good."

That is one farmer's story.

I might remind you, by the way, that there is a bulletin you can get called, "The Principles of the Liming of Soils." It's Farmers' Bulletin No. 921.

Up in the northern part of Oneida county there is a dairyman who has a story on pasture improvement that is as interesting as the one I just told you. This man has a fine herd of Holsteins -- and it's a paying one, too, as his record books will testify. It has financed the building of a new dairy barn and the installing of a water system in his home. Here is his story:

"As I look back on the condition my pasture was in a few years ago, it's a wonder to me that my cows gave any milk at all. It had plenty of weeds, but little grass. I tried to find a way to kill the weeds -- and I did: by using fertilizer.

"It used to be that my pasture would carry only one cow to each three or four acres. But since I have been fertilizing it, two acres will take care of a cow better than three or four acres used to.

"I now find that I have pasture from ten days to two weeks earlier than formerly. That means quite a saving in feed bills. I have also found that when my cows get grass that has been fertilized, they don't need as much expensive concentrated feed.

"In fertilizing my pasture, I use both manure and commercial fertilizers. I always save enough manure for my cultivated crops, however, since I think it is more profitable there than on the pasture. Then, I take my surplus supply of manure and apply it to the pasture at the rate of from 5 to 10 tons to the acre. After I have spread the manure as far as it will go, I apply ammonium sulphate or nitrate of soda at the rate of 50 to 100 pounds to the acre.

"Besides the manure and nitrogen, I apply superphosphate to my entire pasture at the rate of 250 pounds to the acre. I apply this every four years.

"Two or three years ago my county agricultural agent tested the soil in my pasture and found that it was acid. So I applied lime. That application of lime will last perhaps 10 years or more.

"My experience has proved to me that it pays to give a pasture 5 to 10 tons of manure or 50 to 100 pounds of nitrogen to the acre every year, and 250 pounds of superphosphate every four years. And, of course, if the soil is quite acid, the lime pays, too."

ANNOUNCEMENT: Well folks, that ends our experiment for today. Both Station WGY and the United States Department of Agriculture would be glad to know which one of the two programs you like the better, and WHY?

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First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-4) (2)
(Regular Style)

Wednesday, March 11, 1931.

ANNOUNCEMENT: And now for another of our series of experiments. As you know, Station WGY and the United States Department of Agriculture are testing different ways of presenting farm information. In each experiment, we present the same information in two different ways, and ask that you tell us which you like better, and why. Here's the first way:

Did you hear about the stranger who ran out of gas up near Sam Jenkins' place?

He saw Sam's little boy coming along the road carrying a big tin can.

"Say boy," he yelled, "I hope that's gasoline you have in that can."

"Well, I hope it ain't," young Jenkins flared back. "It would taste terrible on Ma's pancakes!"-----

Of course, it was some of Sam's famous Fairfields honey the boy was taking down to Sam's roadside market. And I'll tell you, Sam's honey is good on pancakes! Sam has seen to that.

Those willow trees down near the river end of his farm, give the bees nectar and the pollen they need for brood rearing in the early spring, before time for fruit and clover blossoms.

Then when Sam set out his shade trees and windbreak, he remembered to use trees the bees could use during the off-season for the main honey supply. His supplemental bee-pasture includes maples, and elms, and black locust, and alders, and basswood, which is one of the best honey trees in the northeastern states.

It makes a lot of difference where bees get their nectar. Bees sometimes gather honeydew from the galls on oak trees. But the honey they make from that stuff certainly "would taste terrible on Ma's pancakes." So much so, that it can't be sold for honey under the Pure Food and Drug Act. Aspen, boxelder, and hickory and some of the conifers also have that honeydew which makes criminals out of otherwise honest honey bees.

Speaking of quality products, however, Bill Cobb tells me that last year he averaged 6 or 7 cents more on the basket for his tomatoes than the regular contract price. He did that by selling to the local cannery under federal grades.

As Bill explains, he got paid for the pains he took to raise big, red tomatoes free from diseases. He feels that when he sends only first-class stuff to the cannery, he should get better prices than the man who dumps in low-grade tomatoes of all kinds. Grades also give you a definite basis on which to make a contract with the cannery.

Selling on federal grades is what you might call a highly-moral transaction. That is, both sides win. The cannery men tell me they can afford to pay better prices for tomatoes when they buy under federal standards, because it means lower costs for trimming green, decayed, and otherwise defective tomatoes. Another thing, they don't have a lot of culls to handle, so the factory can operate at a much faster rate. Farmers' Bulletin No. 1233 on "Tomatoes for Canning and Manufacturing" has a lot of good information about canning tomatoes.

Federal grades for tomatoes have been so satisfactory that grades are now being drawn up for other fruits and vegetables grown for canning. Apples and spinach have already been added to the list. Others being studied are peas, beans, cherries, and sweet corn. Grades for cabbage for kraut are also being considered. By the way, Bud Evans lost a lot of cabbage last year from black-rot, which is like bacterial spot of tomatoes, and scab, scurf, and blackleg of Irish potatoes, in that the disease is carried on the seed.

Once black-rot gets started on cabbage or gets established in the soil, you might as well pull up your plants and destroy them and hunt a new location for your cabbage seed bed.

Sam Jenkins rotates his crops so that neither cabbage nor any other similar plant is grown on infested land. Sam also treats his seed by either the hot water or the mercuric chloride method.

Directions for these and other ways of disinfecting the seed are given in the bulletin "Seed Treatment Reduces Loss from Plant Diseases." Ask for Miscellaneous Publication No. 94. Also "Diseases and Insects of Garden Vegetables" Farmers' Bulletin No. 1371.

Second
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.-----9-4) (2)
(Questionnaire Style)

Wednesday, March 11, 1931.

ANNOUNCEMENT: Now you have heard the first way. Let's listen to the second way of presenting the same information. And then let us know which you like the better, and why? ----- Ready.

Well, now folks, I am going to reach down in our question box and get some of the questions some of our farmer friends have asked.

Here's one. This man asks us where he can get information about the insects and diseases which damage vegetables in the garden.

Well, I can't do better than answer that by telling him to write to the United States Department of Agriculture for the Department's free bulletin on "Diseases and Insects of Garden Vegetables." I'll just give him the number of that bulletin. It is Farmers' Bulletin No. 1371.

And now here's another question. This man is asking about the kind of trees to plant for shade or a windbreak -- I see by the letter-head he sells honey --- He's evidently proud of the job he and his bees are doing to make this a sweeter world to live in. He refers to it as "Quality Honey."

In answering that bee rancher, I am going to suggest he bear in mind the bees in planting that windbreak. Maples, elms, black locust, alders, and basswood are all good trees to help supply nectar to bees during the off-season when the main nectar supply from the fruit trees is not to be had.

Willow trees furnish bees nectar and pollen for brood rearing in the early spring.

On the other hand, most of the conifers are not much good for helping out the honey makers. Bees gather honey-dew from the galls of oak trees sometimes, and also from such trees as hickory, aspen, and box elder; but what the bees make from such honey-dew can not be sold under the Pure Food and Drug Act as honey.

Now for another question. W. L. F. writes to ask how to control black-rot of cabbage?

Well, W. L. F., in answer to that, I'd say first rotate your crop, so that neither cabbage nor any plant kin to cabbage is grown on infested land. And, second, I'd say treat your seed. That reminds me, I had another question here along that same line. Here it is: "How do you treat cabbage seed to prevent black rot?"

This man evidently already knows that black rot of cabbage is like black-leg and scab and scurf of potatoes and like the bacterial spot of tomatoes in that it is carried on the seed.

Well here is one way to handle that problem. Put the seed in a sack, and put the sack in hot water for 30 minutes. The water should be at 122 degrees Fahrenheit and the seed should stay in it, just exactly 30 minutes. Then it should be drained and spread out to dry. Other good ways of treating seed are described in Miscellaneous Publication No. 94, called "Seed Treatment Reduces Loss from Plant Diseases." It is put out by the United States Department of Agriculture.

Now here's a man I'm especially glad to answer. He wants to know, "What's the good of government grades for vegetables?"

Well, they lead to better quality, for one thing. And to payment according to quality. You don't want to have to sell your first-class tomatoes for the same price the fellow gets who dumps his low-grade tomatoes on the cannery. But that is what happens when there are no standard grades.

The cannery can afford to pay better prices for the good stuff, because it means lower costs from trimming defective, or rotten, or green tomatoes, and because there are fewer culls to handle, so the cannery can operate faster.

This matter of tomato canning is treated more fully in "Tomatoes for Canning and Manufacturing," which is Farmers' Bulletin No. 1233. I just mention tomatoes because there have been Federal standards for tomatoes longer than for other vegetables. But we also have U. S. grades for spinach and apples and will soon have U. S. standards for peas, beans, sweet corn, and cherries, and for cabbage for kraut.

ANNOUNCEMENT: You have just heard the same information presented in two ways. Which do you prefer? And why? --- Those bulletins mentioned can be had by either writing to Station WGY or by writing direct to the United States Department of Agriculture. "Tomatoes for Canning and Manufacturing" is Farmers' Bulletin No. 1233. "Seed Treatment Reduces Loss from Plant Diseases" is Miscellaneous Publication No. 94, and "Diseases and Insects of Garden Vegetables" is Farmers' Bulletin No. 1371.

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First
PROGRAM FOR EXPERIMENTAL BROADCAST.

(key No.---9-6) (2)
(Regular Style)

Monday, March 16, 1931

ANNOUNCEMENT: Station WGY is now ready to present the 13th in a series of 16 experimental farm programs broadcast in cooperation with the United States Department of Agriculture. There will be two 5-minute talks on the same subject matter. Please write us at the end of the second talk which style of presentation you like best. The subject includes GROWING CORN, and DRAINING WET PLACES ON THE FARM, and now we're off on the first talk.

Well folks, I want to begin my talk today by telling you the story of Frank Baker and his corn patch. Frank has been raising corn ever since he was big enough to jump clods in the plow furrow, but his yields of around twenty-five bushels per acre have never broken down, "busted," nor run-over a single corn crib on the place.

Five years ago Frank tried a new method of growing corn. That year his yields on a 5-acre field averaged 45 bushels per acre. Last year the same field, when it came to corn again in Frank's rotation, averaged exactly 10 bushels per acre. And now I'll tell you how he did it.

The five-acre patch in question had been in a timothy and clover meadow for 4 years when Frank decided to turn the sod and plant the field in corn. His first step was to prepare a wonderful seed bed. As a matter of fact, he plowed the field deeply more than a month before planting and then gives it three good double diskings, the last one just before planting. He applied a good fertilizer high in phosphorus.

Perhaps I ought to say here that Mr. Baker uses the very best home-grown, field selected, and carefully tested seed corn available, and believes that the use of such seed pays with larger yields and better corn.

His plan of cultivation is to work the field with a rotary hoe one week after planting, and then again with the hoe one week later. Following that he cultivates the corn 4 times with a 2-row cultivator -- riding type, and that's the end of the story until harvest time surprises him with a better yield than he expected.

Summarizing, we find 5 major points in Frank Baker's corn program.

First, he plants corn on rich pasture land. Second, he prepares a good seed bed. Third, he uses good, home-grown, tested and adapted seed. Fourth, he applies a good corn fertilizer, and fifth, he practices ample and thorough cultivation throughout the growing season.

I won't have time for further details on this subject, but if you want additional information ask Station WGY to send you a copy of Farmers' Bulletin No. 414, on "Corn Cultivation."

And now let's leave the corn patch and take up the drainage of seepy hillsides and wet farm lands in general.

Charlie Ross, one of our leading bankers in Fairfield, bought a county place down in the Pleasant Valley community last fall. One of his first steps was to figure out how to drain a wet hillside not far from the house. He calculated he would need 11,000 feet of drain tile. Then he called on Bob Early, an experienced drainage man for suggestions on how to lay this tile.

Well, to make a long story short, the tile is laid, the hillside drained, and the banker saved the expense of about 10,000 feet of perfectly good 4-inch tile. The situation was this. Ground water came to the surface about half way down the side of the hill. Naturally, that made all the hillside below, as well as some of the bottom land wet, and the banker planned to drain all this wet land by running tile drains up and down the hill at intervals of about 50 feet. But Bob Early solved the banker's drainage problem by laying ONE line of drain tile AROUND the side of the hill just ABOVE where the water came to the surface. That one drain catches the seeping stream of water before it gets to the top of the ground, and that's the end of the story. In other words, one line of well-located tile often does a better job of drainage than half a dozen lines laid at random through wet ground.

The main thing to bear in mind in draining a seepy hillside or a wet piece of farm land of any kind, is finding the location of the seep, or stream of water. After this place the tile drain so as to catch this water just before it seeps out to the surface and you'll often save yourself quite a bit of time and money, just as Bob Early did in draining the banker's wet hillside.

Farmers' Bulletin No. 1606, on "Farm Drainage" contains additional information on this subject, and WGY will be glad to get you a free copy of that publication if you'll write and tell them you want it.

ANNOUNCEMENT: Ladies and gentlemen, this closes the first part of the experimental program broadcast from WGY in cooperation with the United States Department of Agriculture. Let us know if you want copies of Farmers' Bulletin No. 414, on "Corn Cultivation," and Farmers' Bulletin No. 1606, on "Farm Drainage."

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Second
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.-----9-6) (2)
(Selling Information)

Monday, March 16, 1931.

ANNOUNCEMENT: And now, ladies and gentlemen, we're ready for the second part of this experimental farm program broadcast from WGY in cooperation with the United States Department of Agriculture. Remember that the subject matter is the same in both talks and that you are judging only the styles of presentation. Let's go.

Well, folks, I want to open the program today by reminding you that a ten dollar bill is worth twice as much as a five dollar bill and that there are ways of making the 10 in place of the five.

Don't shoot, please. I know that in this year with production costs not coming down as fast as prices of your farm products, it doesn't sit so well for a person to point out a half dozen easy routes to higher farm income. But have you ever considered this? There are two ways in which a farmer may reduce his expenses and find more money in his pocket at the end of the year. One is to maintain the same scale of production and actually cut down on expense. The other is to secure greater production at practically the same expense.

Either method suited to your situation, while it may not actually replace five dollar bills with tens in your farm income, will have somewhat the same effect.

To get down to cases, growing more corn per acre, is one way to meet the tax payment dates if not cheerfully, at least not fearfully. It is possible and nearly always profitable to grow more corn on nearly every acre of ground in the old York State. Of course that "growing more corn" stunt can't be done overnight. You have to fit in with your rotation, and start with the right situation, but it will pay if figured out right. Let me give you an example:

I know a farm in Yates County that had been doing about 25 bushels of corn to the acre as an average of all fields put to corn, for a generation. It came into new hands. The new owner, going after the 10 dollar bills instead of the five, started out to boost corn yields. He started with a rich patch of ground then in timothy and clover meadow, gave it the proper cultivation and fertilizing, and brought his corn yields up to 34 bushels of good, clean corn per acre. Of course, the field didn't come back to corn again for about four years in his typical Yates County rotation, but when it did come back the right cultivation, fertilization, and management jumped the corn yields past the 5-bushel-per-acre mark. Of course, our Yates County friend couldn't do that well on all his fields. Do you know why?

Do you know how corn differs from a hay crop in its ability to grow and yield on poor and rich soils?

Do you know what effects a few infertile spots in a corn field will have on the production of the whole field?

Have you ever tried to figure out whether or not a certain field should be put to corn or to some other grain that can be substituted in your rotation?

If you are going to make more corn per acre you will need to know the answers to these questions -- and to many others. These questions are answered for you in Farmers' Bulletin 414 on "Corn Cultivation." The other things you want to know, such as fertilizer ratios, methods of application, whether broadcast or in the row, or a combination of the two, and so on and so on, aren't published in any bulletin for general distribution. But you can get sound information on them from your county agricultural agent. Why not consult him on this matter of lowering production expense this year either directly, or by increasing yields.

And now folks, there's one more matter that I want to bring to your attention before closing today's program. This one thing has made many poor farmers -- rich farmers, and has kept the sheriff from foreclosing on many others. This thing is -- DRAINAGE. Drainage is as old as the Hudson River but unless it is wisely and properly done -- much, if not all of the money and time are practically lost. There's a great deal more to drainage than just cutting a ditch down through a wet piece of ground, but when drainage is properly done, it often increases the production manyfold. Wet ground, as you know, is often rich ground, and it isn't always expensive to drain ground if you only know how to do it. Let me give you an example.

A broker in Albany bought a piece of river land up in Washington County. He figured that it needed draining, so he bought 10,000 feet of tile, but the ditcher he employed drained the land and had 8,000 feet of tile left. It was a case of knowing what to do.

Now my friends, I'm about through, but I do want you to listen for just exactly one more minute. Do you have any rich wet bottom lands, sink-holes, pot-holes, or seepy hillsides that will pay for draining? If you do -- drain them and cultivate the soil, but don't just go out and cut ditches and hope for results. No, don't do it that way because that's expensive, and not always satisfactory. Now I want to make a proposition to you people. The United States Department of Agriculture has a large number of a brand new Farmers' Bulletin No. 1606, on "Farm Drainage." If you'll follow the instructions laid down in that bulletin and do your planning before you do your buying, I'm guessing you'll save about as much money as the broker would have saved had he read this bulletin before buying his tile. The bulletin is free. Who wants the first copy?

ANNOUNCEMENT: That, ladies and gentlemen, closes the experimental program. Please write and tell us which style of presentation you liked best, and WHY you liked one style better than the other. Station WGY as well as the U. S. Department of Agriculture will appreciate this information. Farmers' Bulletin No. 414, on "Corn Cultivation," and Farmers' Bulletin No. 1606, on "Farm Drainage," were mentioned during the program. You may have free copies of these by writing WGY at _____.

First
PROGRAM FOR EXPERIMENTAL BROADCAST.

Key No. 9-5 (2)

Thursday, March 19, 1931.

ANNOUNCEMENT: Ladies and gentlemen, Station WGY now presents the 14th in a series of 16 experimental programs, broadcast in cooperation with the United States Department of Agriculture. Today, I'm going to talk to you about cleaning milk utensils and making butter. I'm going to talk for 5 minutes on these topics, using one style. Then, I'll talk about the same topics for another 5 minutes, but in a different style. I would like to know which talk you like the better, and WHY. All right, here's the first talk.

Yesterday, I dropped in at the Fairfields creamery to talk to the manager a few minutes. Dan Burns and Clyde Bland's foreman were there. They had just delivered some cream. The foreman seemed to be a bit ruffled.

This is what had happened. The creamery manager had rejected some of the cream that Clyde's foreman had unloaded. It was sour, as well as off-flavor. The manager had pointed out before the low quality of some of the Bland Farm's cream, but this was the first time that he had rejected any of their cream.

Finally, the foreman cooled off and asked Dan if he knew where Clyde's trouble might lie. Dan knew, all right.

He suggested to the foreman that part of the trouble might be due to hauling buttermilk, whey, and skimmilk in the cream cans. This is likely to cause cream to be sour or off-flavor, you know, unless special care is taken in cleansing the cans.

Then Dan picked up one of the foreman's empty cans, stuck his hand inside and felt up around the shoulder, and then asked the foreman to do the same. Well, there were some pits and cracks there, although you couldn't tell it from looking at the outside of the can. It takes special cleaning and scalding or steaming, you know, to kill the bacteria in these places.

Then, Dan asked the foreman about the way he washed the cans. That revealed some other causes of the low quality of the cream. For example, the foreman doesn't rinse the cans before washing, and he uses a rag and ordinary soap. Dan suggested that he use a ~~brush~~ brush, and an alkali or soda-ash washing powder.

If the foreman follows Dan's hints, I think he'll have no trouble with his cream. I might remind you, by the way, that there's a bulletin called, "Washing and Sterilizing Farm Milk Utensils." It's Farmers' Bulletin No. 1473.

Well, if Dan Burns knows how to handle cream, Mrs. Burns certainly knows how to make butter. Although I'll admit that the care Dan exercises in handling the cream has a lot to do with the quality of Mrs. Burns' butter. Her butter is always good. It never has a strong or sour taste. It's never off-flavor. That's why the Robbins family has a standing order with Mrs. Burns.

How does she go about making such good butter?

One thing is the way she handles her cream. She keeps it just as cool as possible until time for "ripening." Then, she warms it up to 65 or 75 degrees Fahrenheit, and holds it at that temperature until it gets a mild acid flavor.

"Bub," Mrs. Burns' little boy, thinks it would be mighty fine to have the butter come in 10 or 15 minutes. "But I don't think so," she says. "I will agree with him, however, that you don't want to churn too long. I believe that if your cream is at the right temperature, the butter will come in 30 to 40 minutes."

Mrs. Burns thinks that along at this season of the year, the cream should be at a temperature of from 58 to 66 degrees Fahrenheit at the time you start churning. I might say, by the way, that she doesn't rely on the old system of sticking her finger in the churn to test the temperature. She has a thermometer.

Mrs. Burns has a bulletin that she follows in making this fine butter of hers. So I think I'll refer you to it for further tips. The name of it is "Making Butter on the Farm." It is Farmers' Bulletin No. 876.

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Second
PROGRAM FOR EXPERIMENTAL BROADCAST

Key No. 9--5 (2)

Thursday, March 19, 1931

ANNOUNCEMENT: And now we're ready for the second part of today's experimental program. Remember that I'm going to talk about the same subjects which I have just discussed, but this time it will be in a different style. All right, here we go again.

If you have trouble with your milk souring, or not measuring up in quality in some other respect, you may find the cause in the utensils; for example, in the pails, strainers, or cans.

First of all, if you're going to have clean dairy equipment, you need a pure water supply. Protect your well or spring from surface drainage. Wall it in, curb it, and keep it tightly covered.

It's also highly important that you wash and rinse your utensils thoroughly **BEFORE YOU PUT THEM IN THE** steaming cabinet. This prevents the milk that may be sticking to the utensils from "cooking on." The milk that is "cooked on" is harder to clean off the next time.

Now before you put the cans, pails, or bottles, even in the hot wash water, it'll pay you to rinse off as much of the milk, or cream, as you can, with cold or lukewarm water. This will save washing powder in the later cleaning, and it will also keep the wash water in better condition.

Here are a few suggestions on washing the utensils. Don't use soap or greasy powder. Use alkali or soda-ash washing powder. Put enough of it in the water to "break" the water and dissolve the grease. Have your wash water about as warm as your hand will bear. Use a brush not a rag. It's hard to keep rags clean, and they do not clean as the brush does. Don't wash the utensils in the same room in which you handle the milk.

After you wash the utensils, they need another rinsing before you scald or steam them. For some tips on this scalding and steaming, as well as information on the equipment for doing it, I'll refer you to the bulletin called, "Washing and Sterilizing Milk Utensils." It's Farmers' Bulletin No. 1473.

There are two other things that I would like to call to your attention. Watch for pits and cracks on the inside of your milk cans, especially around the shoulder. They may be there, even though the can doesn't leak. It takes special scalding or steaming to properly cleanse these hidden places. The other thing is, don't use your milk or cream cans for hauling buttermilk, or whey, or even skimmed milk.

Now, I'll turn for a few minutes to the matter of making good butter.

I've seen quite a lot of prints of butter in my day that didn't taste as good as they looked. This was probably due, in some cases, to the utensils not being as thoroughly clean as they should have been -- the thing that I've just been talking about. But, of course, the care of the cream and the churning have a lot to do with it, too.

There are probably many of you who churn only once or twice a week. So, I would suggest that you keep your cream in the cooling tank until about 12 hours before you churn it, to keep it from getting too sour. If you let it get too sour, you know, your butter will have a sour, over-ripe cream flavor, and it will not keep well.

About 12 hours before you churn, put all the cream for your churning into one can, set the can in warm water and stir the cream until it is warmed to 65 degrees or 75 degrees Fahrenheit, whichever your experience shows is best. Then let it stand until the cream thickens, has a glossy appearance, and is mildly sour.

About two hours before you churn, cook the cream down again to the temperature for churning. The churning temperature, at this time of year, probably is around 58 to 66 degrees Fahrenheit.

If your cream is at this temperature, the butter should come in 30 to 40 minutes. When the cream is too cool, it will take longer than this, of course, and the butter will be brittle and tallowy. If it is too warm, you lose considerable butterfat in the buttermilk; there is too much buttermilk in the butter; the butter is leaky and contains too much moisture; and the butter has a soft body.

And let me give you just this caution: Don't put ice or cold water in your cream to cool it, and don't put hot water in it to raise the temperature.

For further suggestions on this subject, you might get a copy of, "Making Butter on the Farm." It's Farmers' Bulletin No. 876.

ANNOUNCEMENT: Well, there you are. I've talked about the same subjects in both cases, but I used different styles. I would appreciate your telling me which you like the better, and WHY. This is the fourteenth in a series of experimental programs being presented by Station WGY, in cooperation with the United States Department of Agriculture.

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First
PROGRAM FOR EXPERIMENTAL BROADCAST

(Key No.---9-7) (2)
(Regular Style)

Wednesday, March 25, 1931.

ANNOUNCEMENT: And now, ladies and gentlemen, here is another -- the fifteenth, to be exact -- in the series of experimental programs which Station WGY is broadcasting in cooperation with the United States Department of Agriculture. Again, we present the same information in two different ways; and, again, we'd like for you to tell us which way you like the better. You will need pencil and paper, by the way, before this experiment is over, so it might be a good plan to get it handy now. Now, all ready! Here goes.....

The other evening I dropped by Uncle Jake Kennedy's place, and spent a very entertaining two hours listening to Uncle Jake recall the days "way back when".....

He was talking about the differences between then and now in the way we buy and sell things. There certainly have been a lot of changes, in the interest of sanitation and convenience.

And, as one outstanding and timely illustration of this, the new potato sacks came in for the lion's share of our discussion.

Who would have thought, a few years ago, of putting POTATOES up in so-called "consumer" packages?

Yet, growers in Idaho shipped around 3,000 cars of potatoes in small bags last year; and Maine and several other states used consumer bags to quite an extent.

Now, the new small sacks have several obvious advantages over the old methods; and they may also have several disadvantages. But apparently many growers believe the advantages outweigh the disadvantages; and, in fact, they are making improvements to remove some of the possible objections to the new bags.

For instance, Fairfield's County potato growers are much interested right now in a new kind of bag, which was tried out just last summer. This bag enables the buyer to see what he is getting. One side is made of open mesh -- something like the material used for onion bags -- which you can see through. The other side is of fine-weave material on which you can print an attractive label.

Now, in case you're interested, here are two or three points on the use of these bags. Growers have tried various sizes, anywhere from 15 to 50 pounds. But, by and large, the 25-pound bag seems to be about the most satisfactory.

It is generally agreed, also, that potatoes in small packages should grade U.S. No. 1, or better.

Dealers seem to prefer potatoes of 6 to 10 ounces in size. They think that the large baking potatoes don't pack well.

Of course, growers usually charge just enough more for these consumer packages to pay for the bags and for the extra costs of handling.

Now, let's turn our attention for a minute to fixing up the lawn. I imagine that some of you may be in about the same frame of mind as my friend, Mrs. Frank Baker. Mrs. Baker wants to get some of her lawn in grass this spring, rather than wait until next fall.

She asked me about it, and I told her that I had only one thing to emphasize. That is, to sow seed as early as possible. You can even risk a few freezes and frosts, you know, since they're not likely to hurt the grass. Early planting gives the grass a chance to get a good start before hot, dry weather; and also gives it a chance to crowd out the weeds.

I have seen lawns, seeded as late as May or June, which seemed to get off to a beautiful start. But by the time fall rolled around, all the undesirable grasses had died out, leaving nothing but crab grass and other undesirables.

Now, if your soil has plenty of lime, organic matter, and plant food, you'll sometimes get pretty good results with blue grass without mixing any other kind of grass in with it. But usually it is safer to mix in with some faster-growing grasses, such as white clover and red-top.

On the other hand, you may have acid soil, which won't grow Kentucky blue grass successfully. In this case, quite a few Fairfield County farmers rely on the bent grasses, which do make beautiful lawns.

Here's a good mixture, where conditions are not very favorable to blue grass: 10 parts of Kentucky blue grass, 5 parts of Chewings fescue; 2 parts of red-top; 1 part of Colonial bent; and 1 part of white clover.

And here's just one more suggestion: It is a good idea, also, to include about 10 per cent of Italian ryegrass in a spring seed mixture. The Italian ryegrass grows quickly and establishes a good sod. In this case, of course, you reduce the amount of Kentucky bluegrass accordingly.

If you would like to get further information about either packaging of potatoes, or spring seeding of lawns, write to Station WGY in Schenectady, or to the United States Department of Agriculture in Washington, D. C.

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Second
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.-----9-7) (2)
(Pencil and Notes Style)

Wednesday, March 26, 1931.

ANNOUNCEMENT: Now, for the second part of today's experiment. If you will please get your pencil and paper ready now, we'll be off. All set? Here goes, again.

First of all, folks, I'm going to ask that you divide your sheet of paper into four quarters -- one line down the middle and one across.

Now, just keep that pencil poised and we'll use it as a sort of third ear, to see if it won't make radio listening plainer. All set? Well, let's start off with a headline, at the top of the upper left hand quarter of your paper. Write these words: "Sow Lawn Grass Early."

Now, let's see if we can't PICTURE the reason back of this headline. About half way between top and bottom of this left-hand quarter, draw a straight line clear across. Now label each end of this line with the word "winter." Yes, just plain W-I-N-T-E-R, winter. Then, in the center of the line draw three small mounds, or hills, about the size of peas, close together. We'll label these, too. Label one of them "Hot Weather." Got it? Then, let's call the second one, "Weeds." And the third one, naturally, will be "Dry Weather."

Now, just one thing remains to make our picture complete. Close to the end of the line, on the right, draw a small ball, a little bigger than a pin-head. Now you can label this ball with the words "Lawn Grass." And there you are.

The idea seems to be this: We want to roll that ball along the line so that it will get from one winter to the other without stopping or without accident. How are we going to get that ball over those obstacles in the middle of the line? Well, draw an arrow, pointing from the ball to the headline at the top, and you have your answer.

To get over those bumps, the ball will need momentum; and so, it not only needs a good start, but it needs an early start.

And I might add that the month of April, generally speaking, is probably about the best time to sow lawn grass.

Now, over in the upper right hand quarter, about an inch from the right-hand side, draw a line up and down. Now, you have two columns, one wide and one narrow. At the top of the wide column write these words: "Kind of Grass." Over the narrow column write the word "Proportion." Then, draw lines under each of these two headings, and we're ready to take down a good grass mixture.

First, of course, comes Kentucky blue grass. Write "blue grass" in the wide column, and opposite it in the narrow column, put the number 10. On the second line now, write Chewings (C-h-e-w-i-n-g-s) fescue (f-e-s-c-u-e), and in the narrow column put the numeral 5. In line 3, write "Red Top," and the number is 2. Next comes Colonial Bent (C-o-l-o-n-i-a-l B-e-n-t), number 1, and white clover, also 1.

Now, this mixture is a fine one in places where the soil isn't so well adapted to blue grass alone.

Here's one other suggestion. It is usually a good idea to put in 10 per cent of Italian Ryegrass in most any spring lawn mixture. This would be about two parts in the mixture you have on your paper. And so, if you want to add 2 parts of Italian ryegrass, you would make the proportion of blue grass 8 parts instead of 10.

And now, here's a real chance to try out your artistic ability. I'm going to ask you to draw 3 potato sacks -- down in that lower left hand corner. One large one, and two others about a third as large as the first one. Of course, these don't necessarily have to be perfect pictures of potato sacks, but let's keep in mind that's what they're supposed to be.

Well, these sketches represent quite a change in the methods of putting up potatoes. The big sack is the one everybody is familiar with. Under the two small ones, you might write "New Consumer Bags."

You know, these small bags to fit the modern buyer's convenience, have come into quite extensive use by growers of fine potatoes.

One objection to the small bags, though, has been that consumers cannot see what they are buying, and so, somebody has recently worked out a way of removing this disadvantage. Here's what they've done:

In the first of the two small sacks, draw lines, both up and down and across. Put them close together -- so the potatoes won't fall out -- and cover the whole sack with them.

Now, this is the new open mesh potato bag. Buyers can look through it and see what they are buying. And now suppose we let the other small drawing represent the other side of this same bag. Along about the middle, draw a square, about a third the size of the bag itself. This is the attractive label which many up-to-date growers put on their potato sacks.

Now, in the lower right hand quarter, I'm going to ask you to draw two lines clear across, right in the middle and about half an inch apart. Label this space "The Golden Mean." Then, inside the space, write two lines: "First, 25-pound bags;" and second, "6 to 10 ounce potatoes." The idea is that average-sized bags and averaged-sized potatoes are most commonly preferred.

However, there's one thing that doesn't belong in the Golden Mean, or average class, and that is quality. In small bags particularly, quality needs to be above average -- and so, up near the top of this quarter, write "U.S. No. 1 or better."

Now, if you'd like further information on sowing lawn grass, or on small potato bags, write either to Station WGY or to the United States Department of Agriculture in Washington, D. C.

ANNOUNCEMENT: Ladies and gentlemen, you have been listening to the 15th in the series of experimental programs which Station WGY is presenting in cooperation with the United States Department of Agriculture. Remember, we'd like to know which of the two styles presented today, you liked the better; and if you can, tell us why you liked it better.

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First
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No.---9-8)(2)
(Regular Style)

Friday, March 27, 1931.

ANNOUNCEMENT: And now we come to the last in the series of experiments Station WGY and the United States Department of Agriculture have been trying. As usual, we will present the same subject matter in two different forms, and ask that you let us know which you prefer, and why. Now, here's the first way:

Well, Mrs. Frank Baker called me up the other day. She was all excited. All about one rat. --- But what a rat!

He had sneaked into her brooder house. And when she went out there in the morning, thirty-three of her best little baby chicks had been killed by that lone varmint -- at least, she thinks there was just one rat.

Anyway, that was too much for a good poultrywoman like Mrs. Baker. She wanted to know how to rid her place of rats. I was going up that way, so I took her my copy of Farmers' Bulletin No. 1638 on "Rat Proofing Buildings and Premises," and suggested she get some red squill, that rat poison developed by the United States Bureau of Biological Survey.

When I said rat poison, she hesitated. She was afraid some of the chicks or the children might get hold of it, until I showed her in Leaflet No. 65 on "Red Squill Powder in Rat Control," where it says the advantage of red squill is that it kills the rats, but doesn't harm other animals. A small quantity of red squill powder mixed with some attractive bait, such as fish, or meat or cereals, will fix that rat or those rats in short order.

I was glad I went up there, too. Mrs. Baker has been using artificial lights and was just turning them off. She seemed to have a mighty good idea about doing it, so I'm telling other poultrymen in Fairfield County how she does it.

I saw she was "turning off the lights," because she doesn't do it all at once. She has found that in using artificial lights if you stop suddenly, just as in most any other sudden change in poultry management, you may upset the hens and cause a drop in production. To get around that, she cuts the lights off gradually, over a period of a few days.

Of course, she also gradually cuts down on the special feeding she was doing while the artificial lights were being used.

Speaking of feeding, however, this is the season of heavy laying and so hens need plenty of grain and mash. And with lots of grain and mash, they also need plenty of oyster shell, limestone, grit, and lots of drinking water.

And as for the baby chicks, when they get 4 or 5 weeks old, most of our leading poultrymen here in Fairfield County begin to feed baby-chick scratch feed in addition to the chick mash. For instance, Art Short starts with one part of scratch feed to nine parts of mash. Then he gradually increases the scratch so that when the chicks are 10 to 12 weeks old, they are getting equal parts of scratch and mash.

By that time, of course, the baby-chick scratch feed is replaced with cracked corn and whole wheat.

I believe practically all poultry raisers in Fairfield County use commercial chick feeds to some extent -- especially baby chick scratch. In fact, it is pretty hard to get the finely crushed ingredients of baby-chick scratch unless you buy them as ready mixed feed.

Now, here's something that my friend Art Short always emphasizes. Art says chicks grow fast along about this time, and so need a good chance to get plenty of mash. He provides one inch of dry-mash hopper space for each chick.

And here are two other of what Art calls his "rules for chick feeding:"

First, keep feeding cod-liver oil to growing chicks until they are six to eight weeks old -- at the rate of 1 per cent in the mash. After that, leave off the cod-liver oil, IF the chicks are out of doors every day on good range, and so get plenty of sunshine.

Then Art's second rule is to include milk in some form in all rations for growing chicks. Milk stimulates growth and helps to keep chicks healthy. Either dry or liquid milk will do.

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Second
PROGRAM FOR EXPERIMENTAL BROADCAST.

(Key No. 9-8.) (2)
(Fable Style)

Friday, March 27, 1931.

ANNOUNCEMENT: You have just heard the first way of presenting the same subject matter in this last of our series of experiments. Now for the second. And then, please let us know which you like the better, and why:

Now this will be the Fable of the Radio Poultryman and the Rats with no Ear for Music.

There was once a community where each chicken raiser carried a rabbit's foot. The rabbit's foot didn't always work, but these were Veteran Fifty-Percenters and counted themselves lucky when half their chicks reached roasting size.

Into this community of Fifty Percenters came Ernest Listener. As a man, the Fifty Percenters were willing to grade Ernest as U. S. Standard, but as a poultryman they didn't rate him so high.

However, Ernest early developed the habit of roosting near the radio when the poultry talk was on. If the chick-feeding specialist suggested to add scratch feed when the baby chicks get 4 or 5 weeks old, Ernest would grab a pencil. When the Recognized Authority said start with one part scratch to nine parts mash, Ernest put down "one part scratch to nine parts mash." When word came to gradually increase the scratch so that the chicks are getting equal parts scratch and mash when they are 10 to 12 weeks old, Ernest noted that down too.

Another time, Ernest tuned in on chick feeding and was tipped off to keep feeding 1 per cent cod-liver oil to the chicks by mixing it in the mash until they were six to eight weeks old, and after that to leave off the bottled sunshine, if the chicks had plenty outdoors.

Ernest also learned from his Poultry Hole to include milk in some form in all rations for growing chicks, and to provide one inch of hopper space for each chick.

All the Fifty Percenters thought sitting at the radio a be-setting sin, but somehow the growing chicks indorsed the idea.

And about the time the Fifty Percenters would stretch their necks to crow over Ernest, they would be thrown off by the cackling of Ernest's hens.

When artificial lighting came into vogue in the community, the Fifty Percenters began to sit up and take notice of the strange doings in Ernest's hen house. When time for shutting off the lights came in the spring, Ernest didn't just shut his lights off. Not Ernest. He had been reminded that hens are nervous

ladies and sudden changes are too much shock for them. He turned his lights off gradually, and changed feed gradually too, so there was no drop in production, such as result from any radical changes.

Well, that started the Fifty Percenters to playing with the radio dials, but most of them seemed to prefer fishing for distance.

Then came the rats! The rats defied the community cats and dodged the traps, and each morning more little baby chicks developed wing feathers for another world.

The Fifty Percenters saw that the rats were going to get even their rabbits' feet. They thought of trying several rat poisons, but all were dangerous to chicks and children. They even longed for another Pied Piper of Hamelin, until they remembered that his remedy got the children, too.

Ernest Listener was sure that the rat that would kill little biddies had no ear for music. He also remembered about Red Squill and how he had heard by radio that it was unlike Pied Pipers or poisons. It would kill rats and was harmless for chicks and children and livestock.

Ernest fished around in his radio notes and found the numbers. Leaflet No. 65 on "Red Squill Powder in Rat Control," and Farmers' Bulletin No. 1638, on "Rat Proofing Buildings and Premises." He passed the word on to the Fifty Percenters and it worked. From that time on, the Community got the habit, and lo and behold the percentage began to rise. ----

The moral of this story is that a stage magician is not the only man who can pick dollars -- and SENSE out of the air.

ANNOUNCEMENT: You have heard the last of the series of experiments presenting the same subject in two different ways. Kindly let us know which style you prefer and why. The publications mentioned can be had by writing either to Station WGY or direct to the United States Department of Agriculture. Ask for Leaflet No. 65, on "Red Squill Powder in Rat Control," and Farmers' Bulletin No. 1638, on "Rat Proofing Buildings and Premises."

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